[Headband and Initial from Antonius Donatus ab Altomari: Omnia Opera, Lugduni, 1586]

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FURTHER INFORMATION ON EARLY ANATOMICAL FUGITIVE SHEETS

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COMMENTS from many of my friends lead me to offer some further information on early anatomical fugitive sheets. The extreme rarity of these broadsides is only emphasized by the occasional appearance of one in a book catalogue. The most recent one offered in an English catalogue is a very interesting example.

> Large woodcut of a man and woman seated, with movable lift up diagrams, displaying full anatomical details, with reference letters, etc. Three folio sheets of explanatory text, printed for Peter Stent, at the White Horse in Gilt-Spur Street, without Newgate, N. D. (ca. 1640).

This is a variant of the "Nosce te ipsum" sheet described by Choulant and assigned to de Gourmont. The print is 37.5 by 42.5 cm. and represents the Adam and Eve figures both seated on a bench, the woman holding a tablet in her hand, marked "Nosce te ipsum, Know Thyself." There are two titles: "Interiorum Corporis HV-Mani Partium viva Delineatio. Pertulis Anatomes Interiorum Mvliebris Partium Cognitio, etc." These titles appear respectively above the male and the female figures. Neither the monogram nor the dissecting knife appear upon this variant. Accompanying the sheet are three pages of letter press 26 by 42.5 cm. Two of these pages are printed on the same side of a very large folio sheet with reverse blank; the other page is on a half folio sheet with reverse likewise blank. The lettering is important from several standpoints. The first sheet is headed: "The Anatomie of the inward parts of Man, lively set forth, and diligently, declaring the principal veins, with the ufe of letting bloud; very neceffary for Physicians and Chirurgians, and all others that defire to know Themselves." The second sheet below a decorative border reads: "A Declaration of Letters, fignifying the principal veins to let bloud." At the bottom of the sheet is the following admonition printed in italics: "Behold (Gentle Reader) thefe are the Veins that are commonly inured to be cut. There be many other veins that may be cut for divers griefs; but becaufe they are little in ufe, and Galen and other ancient Greeks have made no mention of them, let this fuffice." The third sheet is headed: "Anatomie of the inward parts of Woman, very neceffary to be known to Phyfifians, Chirurgians, and all others that defire to know themselves," and at the bottom of this sheet is the colophon: "Printed for Peter Stent at the Vvhite Horfe in Gilt-Spur Street without Newgate."

In the library of the Royal College of Physicians there is a copy of Geminus, 1545, which has, laid in, a "Nosce te ipsum" sheet with the letter press in English. It is illuminated but the initials "R. S." are not to be found. Voynich has described a copy of the 1559 Geminus with a similar unilluminated sheet laid in, which has the initials "R. S."

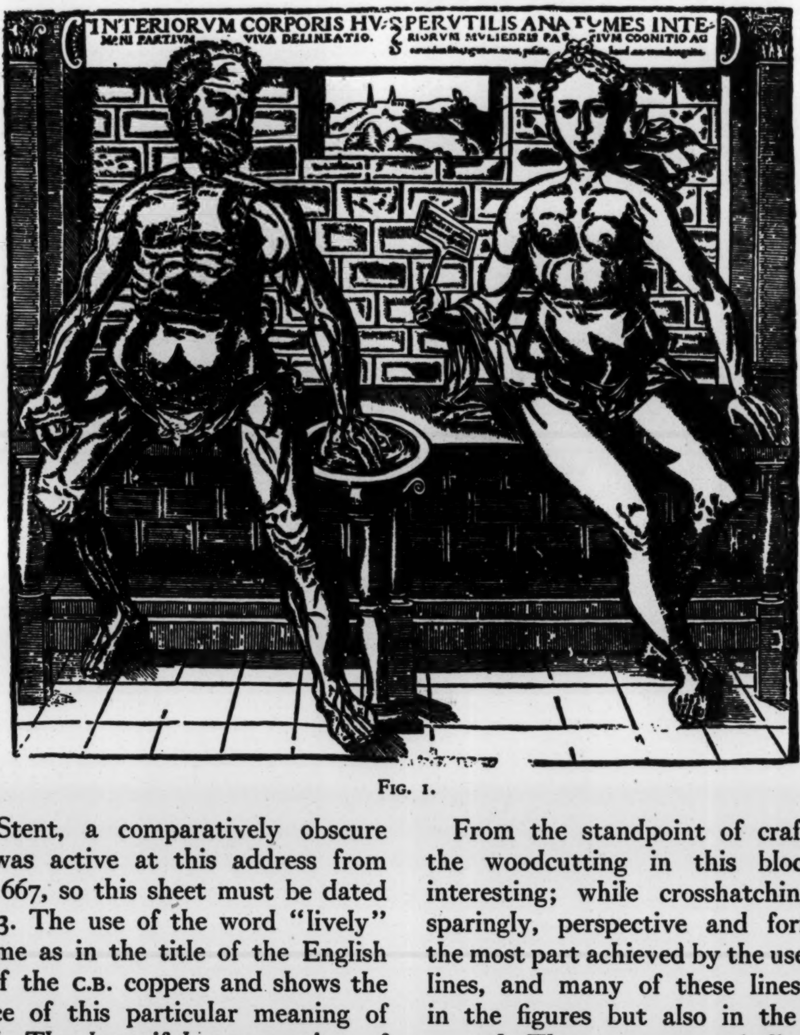
INTERIORVM CORPORIS HV-
MANI PARTIVM VIVA DELINEATIO.
PERVTILIS ANATOMES INTE-
RIORVM MVLIEBRIS PARTIVM COGNITIO AC

FIG. 1.

Peter Stent, a comparatively obscure printer, was active at this address from 1643 to 1667, so this sheet must be dated after 1643. The use of the word "lively" is the same as in the title of the English version of the C.B. coppers and shows the persistence of this particular meaning of the word. The beautiful preservation of the sheet is due to its having been found in a folio scrapbook of the period. This Stent issue extends the use of such sheets in England much beyond the commonly accepted date.

From the standpoint of craftsmanship, the woodcutting in this block is very interesting; while crosshatching is used sparingly, perspective and form are for the most part achieved by the use of parallel lines, and many of these lines, not only in the figures but also in the walls, are curved. There are many indications that the Stent block was a fresh block. While the fundamentals of the craftsmanship are the same as in the much earlier block represented by the print in Geminus in the College of Physicians, certain lines of the original cut are missing, as are the initials and the knife described in the French edition. The anatomy, even at this late date, is pre-Vesalian, and indicates a faithful copying even to all the details of the earlier sheets of the same type. Each figure has seven flaps which are cut out and superimposed with remarkable delicacy. Choulant[1] states that the print is of French origin and was first printed by de Gourmont in 1585, but later on[2] Frank, more properly, considers the plate of English origin, and that the de Gourmont edition is a copy. The discovery of this plate in Geminus in the Royal College, the citation by Voynich and its reproduction much later by Stent, supports the latter supposition, and it now seems evident that this plate is of English origin. This contention is further supported by the legend, "Know Thyself," on the tablet which is found even in the de Gourmont edition.

There has been some discussion as to whether this plate was a part of the 1559 edition of Geminus, and it is sometimes assumed that this sheet was added to the book by Geminus or his binder, but the occasional appearance of this sheet in editions of Geminus is probably due merely to the coincidence of size, as it just fits into the Geminus folio, so that the book offered a good place in which to preserve the woodcut.

Dr. Ernest Wickersheimer, of Strassburg, was gracious enough to show me the "de Necker" sheet which he has so ably described.[3] While this is the earliest of the dated Eve plates, I am inclined to doubt if this particular sheet was really printed in 1538 since the superimposed flaps are eight in number and the apposition remarkably accurate, a condition not found in the other sheets before 1560 or 1570. Dr. Wickersheimer also showed me a copy of the Eve plate printed at Strassburg by Jacob Frolich, 1544. This has been cited by Haller.[4] It is a single sheet and has the same figure as the 1539 sheet described by Wickersheimer, but the central figure is surrounded by considerable descriptive text in German, and has also the eight conventional cuts of the internal organs.

Sir D'Arcy Power has a unique set of four anatomical sheets of the Remellin style; the titles are "Spring," "Summer," "Autumn" and "Winter." Each represents the anatomy of a different period of life, and the superimposed flaps are even greater in number than in the Remellin figures. The technical excellence in this sheet greatly surpasses all other similar coppers. There is no date nor printer on these sheets, and the only clue as to date is an astrological chart of 1605. If this is the proper date, these sheets antedate the first issue of Remellin.

On the walls of a bookshop in Rome, I saw a framed woodcut of a skeleton which the dealer told me he found in the binding of a book. Unfortunately, he could give me no information concerning the book which might have helped in determining the date of the woodcut. In removing the sheet from the binding that portion of it which covered the back was destroyed so there is a defect in the sheet which runs directly through the pelvic bones. This sheet has all the characteristics of a fugitive sheet but the cut itself has not been previously recorded as a fugitive sheet.

By a fortunate chance, a few weeks later, in Modena, I found another print of the same skeleton, but close examination showed that it was printed from a different block. This sheet is 31 by 21 cm. and is surrounded by a woodcut border of peculiar design, a design in fact which is unknown to print connoisseurs. The skeleton itself is 22.5 cm. high. In the right hand is a staff instead of the spade of the Vesalian skeleton. The posture and the staff are strongly reminiscent of the Valverdus skeleton, and in fact, the anatomical detail of the pelvis, thorax and the skull seems to have as close a similarity to the Valverdus skeleton as woodcutting can produce from original coppers. There is one feature which is unique in this particular skeleton: attached to almost every bone, except those of the thorax, are tag ends, which seem to represent muscle attachments. One explanation which has been offered for this peculiar appearance is the possibility of its being a survival of the Zodiac lines of the earlier figures and this theory deserves consideration. It also might well be possible that this represents the gruesome ideas concerning the old association of worms with death. "Men have died and worms have eaten them," said Shakespeare. The appearance of three live crabs in the pediment tends to substantiate this theory.

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[1] Choulant, J. L. History and Bibliography of Anatomic Illustration, etc., Trans. and Ed. by M. Frank, Chic., 1920, p. 160.

[2] Choulant. *Op. cit.*, p. 193, footnote.

[3] Wickersheimer, E. *Bull. Soc. franç. d'hist. de la méd.*, Par., Apr., 1921.

[4] Choulant. *Op. cit.*, p. 159.

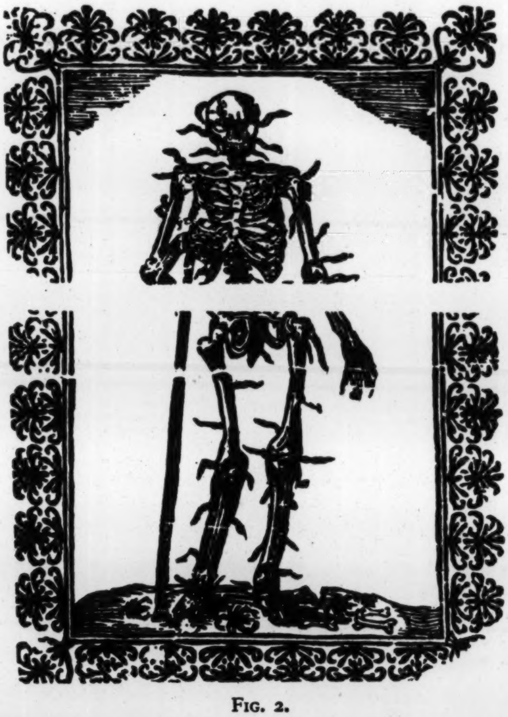


FIG. 2.

While Valverdus followed Vesalius rather slavishly in most of his cuts, his skeleton figures show some originality. It is interesting to speculate whether this particular sheet is a copy of the Valverdus copper, or whether the Spaniard got his idea of the posture and arrangement from this fugitive sheet, which may have antedated Valverdus. At any rate, this sheet adds several new points to our knowledge of fugitive sheets; the woodcut border, the muscle tags, the crawling crabs, are not found in other anatomical figures. The popularity of these fugitive sheets is again attested by the fact that this same figure was printed from two different blocks.

There is no date or place of printing indicated, nor is there any sign or monogram which serves to identify the woodcutter, nor is there anything in the paper or printing which aids us in determining the date or even the country of impression; but print experts who have examined the sheet assign it either to Germany or Italy, and the date anywhere from 1510 to 1560. If the latter date be correct, this might have been copied from Valverdus, as the first edition of Valverdus was 1556, but it seems to me that the impression is earlier, and it may be possible that this woodcut is the original and Valverdus adopted it for his copperplate.

The woodcut border on this sheet is unknown in Italian prints and uncommon in German prints, but the accident of discovery in Rome and Modena points to Italian origin, as does the subject itself, since at this early period, opportunity to study skeleton models was much more favorable in Italy than elsewhere. The similarity to the Valverdus skeleton also points to Italy as the country of origin.

Copies of the skeleton figures of Vesalius' "Tabulae" are extremely rare. Aside from the plagiarisms appearing immediately after the publication of the "Tabulae," there is no record of these figures in the later books. This is not surprising since the figures in the "Fabrica" were a great improvement over the earlier designs, and practically all books on anatomy for the next hundred years or more copied the Fabrica skeletons; but reduced copies of the Tabulae skeletons, accurate in every detail, are to be found in at least one edition of Jean Cousin's "L'Art de Dessiegner avec mesures et proportiones. A Paris, Chez François Jollain" (1600). There are numerous editions of this popular work on anatomy for artists, but in the two other editions at my disposal, the skeleton figures are lacking. This reproduction of the "Tabulae" figures is not mentioned by De Freyer.

Mr. Felix Neumann of the Army Medical Library offers a valuable suggestion as to the origin and method of distribution of these sheets. He thinks these were a part of the stock in trade of the lesser dealers at the Frankfurt and other book fairs of this period. This method of production and distribution accounts in good measure for the numerous and small editions and even for the extreme rarity of these sheets.

These may be thus added to the previous check list[5]:

CLASS ONE, SKELETON SHEETS

TYPE VI.

Single sheet, without title, 31 × 2 cm. Valverdus skeleton with muscle tags attached; skeleton figure 21 cm. high, with right hand resting on staff; in the pediment are represented four crabs; the whole surrounded by a decorative border. No letter press. ***

VARIANT A: Same sheet, printed from a different block. ***

CLASS THREE, ADAM AND EVE PLATES

TYPE V. VARIANT B: SINGLE SHEET:

Interiorum Corporis HV-Mani Partium Viva Delineatio. Pertulis Anatomes Interiorum Mvliebris Partium Cognitio, Etc. Printed for Peter Stent, at the White Horfe Gilt-Spur Street without Newgate (ca. 1643 to 1667).

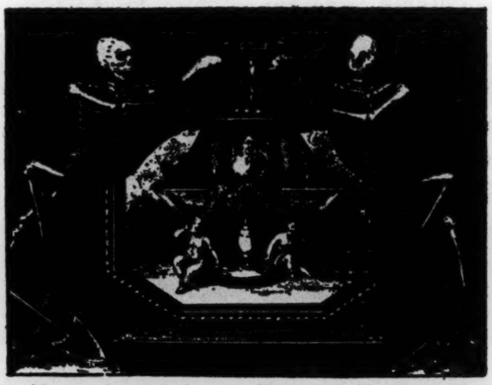
This is the same sheet assigned by Choulant to de Gourmont. It is accompanied by three pages of letterpress in English. It is not illuminated and has neither the monogram nor the knife as described in the French sheet. ***

VARIANT C:

Same sheet, illuminated, preserved in a copy of Geminus, 1545, also without monogram or knife, accompanied by a page of letterpress in English. (Royal College of Physicians, London.)**

VARIANT D:

Same sheet, not illuminated, but with knife and monogram "R.S." (Voynich Cat. Nov., 1902).



[Cowper: Anatomia Corporum Humanorum, Utrecht, 1750.]

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[5] ANNALS OF MEDICAL HISTORY, v, iii, 189.

JAMES MEASE*

By WILLIAM SNOW MILLER, M.D.

MADISON, WIS.

IN 1749 there was issued at Philadelphia, by Benjamin Franklin,[1] a pamphlet bearing the title "Proposals Relating to the Education of Youth in Pennsylvania." This pamphlet aroused so much interest that it led a group of men to acquire what was known as the "New Building," and to found what was called the "Academy."

While necessary alterations were being made classes were held in a private house and it was not until January 7, 1751, that the building was formally opened for instructional purposes. The success of the Academy was so gratifying that application was made for a charter. This was granted to the trustees of the Academy by the proprietors, Thomas and Richard Penn,[2] in 1753. In 1755 this charter was amended and enlarged. With the acquisition of the amended charter the name of the institution was changed from "The Academy and Charitable School of the Province of Pennsylvania" to "The College, Academy, and Charitable School of Philadelphia in the Province of Pennsylvania."[3]

In the first class to graduate from the College with the degree of A.B. was John Morgan[4] who, with William Shippen, Jr.,[5] a graduate of the College of New Jersey (Princeton), founded in 1765 the medical school which, at first connected with the College, at a later date took part in forming the medical department of the University of Pennsylvania.

With the close of the War of Independence dissatisfaction arose with the board of trustees and, "by an Act of the Legislature, November 27, 1779, the charter of the College of Philadelphia was abrogated, its officers removed and its property transferred to a new institution" entitled the University of the State of Pennsylvania.

This act of the legislature was regarded by the friends of the College as unjust and unconstitutional, and constant efforts were made to restore to the College its powers and property. This was accomplished in March, 1789. In the meantime the legislature had made certain grants to the University which could not be transferred to the College; thus it came about that for the next two years both the College and the University maintained a precarious existence. Recognizing their position, and having no deep-seated hostility, overtures were made for a union of the two schools. The legislative act necessary was easily obtained and on September 30, 1791, the two corporations were legally united into one under the name, which it still bears, the University of Pennsylvania.

In 1792 the first class graduated from the Medical Department of the University of Pennsylvania. One of the seven men who received a degree in medicine at this time was James Mease, the subject of the following sketch.

James Mease was born August 11, 1771, and was a Philadelphian by birth and education. His father was John Mease and his mother was Esther Miller Mease.

In 1784, at the age of thirteen, he entered the collegiate department of the University of the State of Pennsylvania and received his A.B. in 1787 and his A.M. in 1790. He at once proceeded with his medical studies and in 1792, as already stated, received his M.D., at the first commencement after the union of the medical department of the College of Philadelphia and of the University of the State of Pennsylvania to form the medical department of the present University of Pennsylvania. Dr. Mease died in Philadelphia, May 14, 1846.

In August, 1790, Mease published in the *American Museum* a short paper on hydrophobia. The immediate cause of this publication was "a paragraph . . . inserted in almost all of the newspapers in the City, in the month of January, 1790, taken partly from Boerhaave,[6] in which the disease was described in the most erroneous and dreadful manner: and the Tonquin[7] remedy recommended at the same time as an infallible preventative and cure." He eventually elaborated this article into his inaugural dissertation which bore the title "On the Disease Produced by the Bite of a Mad Dog or other Rabid Animal" and was dedicated "To Benjamin Rush, M.D., Professor of the Institutes, and of Clinical Medicine in the University of Pennsylvania."

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* Read at the November, 1923, meetings of the Medical History Seminar, University of Wisconsin.

In the preface he refers to the change in the requirements for a thesis inaugurated by the University of Pennsylvania. The candidate for a degree was given the option of writing his thesis "either in the Latin or English language." Mease elected English because of its "being generally useful to my countrymen."

How different public opinion was in 1527. At that time Paracelsus[8] introduced the innovation of lecturing in the language of the country rather than in Latin, a language only understood by a minority of the people. "He rejected the time-honored use of the Latin language, because he believed that the truth could be expressed in the language of the country in which he lived."

As Paracelsus was the first to lecture in the German language, his friend Phryesen,[9] of Colmar, with whom he took refuge when driven out of Basel, was the first to write in the German language so that medical instruction might be open to those who had no training in the Latin language. He says: "Methinks German is not less worthy to express all things than are Greek, Hebrew, Latin, Italian, Spanish, French, into which languages we find every matter interpreted. Shall our language be of less importance?"

Both Paracelsus and Phryesen suffered because of their daring; but Mease acquired a high reputation because of his masterly treatment of his subject in a language readily understood by his countrymen.

Mease's thesis was the first American contribution of note on hydrophobia. For many years he was considered the best authority on the subject. The reputation of his thesis was so great that it was republished at London in 1793, with a preface and an appendix by John Coakley Lettsom.[10]

Because the thesis is rarely seen, and because of the controversy it gave rise to with Benjamin Rush,[11] I shall abstract freely from it and from his subsequent publications on the subject.

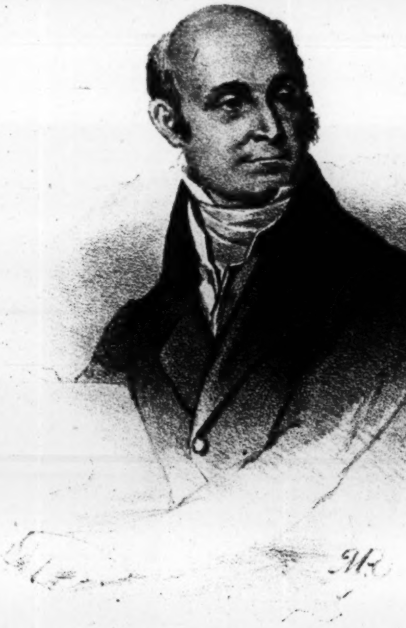


FIG. 1. JAMES MEASE (1771–1846).

The animals most frequently affected with hydrophobia, he says, are dogs, wolves and foxes. He denies that the disease arises spontaneously, and says:

> But why should this disease be thought to arise spontaneously, any more than the small pox, venereal disease, or any other depending on a specific contagion? I will not deny that an aversion from swallowing fluids has occurred in no other disease, but that proceeding from the bite of a rabid animal. I have already mentioned its occurrence in tetanus, hysteria, and

other diseases. All I contend for, is, that such cases as are called spontaneous instances of the disease are not accompanied with other symptoms which so characteristically designate the idiopathic affection. The same mistake has been made in calling every emaciation of the body a consumption; when, accurately speaking, and according to the definition of the disease, no such emaciation deserves the name of consumption but that which is accompanied with a local, though not primary affection of the lungs, constituting the disease, and understood by physicians by the name of Phthisis Pulmonalis.

Of the symptoms of the disease, Mease pays the most attention to the aversion to fluids and the difficulty in swallowing. He says this is not confined to hydrophobia: it may occur in hysteria, as observed by Mead,[12] and in tetanus as recorded by Percival[13] and Rush. His explanation is as follows:

> The explanation, therefore, that I would propose of this symptom is as follows. In consequence of the action of the poison, on the nerves of the body . . . , a morbid and excessive degree of sensibility is induced; whereby the action of the slightest stimuli produce the most disagreeable effects. The fauces, also, particularly the muscles employed in deglutition, partake of this general morbid state: as soon, therefore, as any liquid touches them, they are seized with spasmodic affections which consequently excite pain; in the very irritable state of the parts, this pain becomes extreme; on a second attempt, therefore, to drink, or a mere mention being made of it, the idea of the patient's former sufferings will be immediately excited, and consequently he will refuse it with disgust.

The length of time between the reception of the virus and the appearance of the disease, he says, has been given as twenty years in one case; forty years in another (Morgagni[14]); "but the most common time may be included between three and six weeks."

The causes assigned as leading to an early or late attack are the following: (1) The part of the body bitten; (2) the stage of the animal's disease, at the time of inflicting the bite; (3) the difference of the original virulence of the poison; (4) the quantity of it inserted into the wound.

His comments on these causes are as follows: (1) He rejects the idea that the nearer the bite to the head the sooner the disease will appear; for in cases where more distant parts of the body have been bitten the disease has appeared as early as when the bite was near the head. (2) Experience has shown "that a bite received in the first stage, has proved equally and as suddenly fatal with one received after the disease had subsisted sometime." (3) "The disease cannot be excited, unless the poison has arrived at a certain degree of perfect formation, so, if this has taken place, I cannot see the propriety in supposing any additional activity." (4) The quantity of poison seems equally unessential. "In many cases, the bite has been so trifling, as scarcely to be noticed, which has produced the disease as soon and as certainly as where it has been very extensive."

The remote causes in dogs as given by various authors he enumerates as follows: (1) Great heat, or cold; (2) putrid aliment; (3) deficiency of water; (4) want of perspiration; (5) worm under the tongue.

Mease rejects all of them; and in regard to "a worm under the tongue" he says Pliny was the first who took notice of this. "The idea of a worm is utterly false, no such thing exists."

The only remote cause in man acknowledged by Mease is, "a *poison of a peculiar nature in the saliva of a rabid animal, belonging to the genus canis.* A question here arises, which it is necessary to determine. In what manner, or by what means is the virus which produces the disease, communicated to the system?"

He enumerates the following as the modes most frequently given: (1) By absorption; (2) by the breath drawn into the lungs; (3) by contact with the saliva.

Mease rejects them all and says:

> I deem a wound absolutely necessary for its operation. The poison, as existing in the saliva, when inserted by a wound into a part of the body, lies dormant for some time, and at length in various periods, in different persons, begins to show its effects on the system at large.

In his opinion the poison acts on the nerves and produces a striking analogy to certain nervous diseases, "particularly tetanus."

The eighteenth century was noted for various medical systems and theories. Of these the "Brunonian System" advocated by John Brown,[15] "the disputatious and disreputable Brown" (Allbutt), was the most picturesque. In England, where it originated, it had but few followers. France and Spain likewise paid but scant attention to it; but in Italy and Germany it found its greatest support. In the United States, Benjamin Rush became an enthusiastic supporter and, naturally, his students were influenced by his advocacy.

According to Brown diseases are "due either to excessive or deficient excitement, and are termed sthenic or asthenic, according as they arise from the former or latter cause." The asthenic type was the most frequent (97 per cent), and it might be occasioned either by deficient stimulus (direct debility) or deficient excitability following excessive stimulus (indirect debility).

This theory had its influence on Mease as will be seen in his discussion of the proximate cause of hydrophobia: "I assert, then that the virus induces a general debility of the nerves. . . . Is it by a *direct* operation that it produces its effects? . . . or is it by *indirect* means?"

According to Brown the canine virus, as all other poisons, had a stimulating quality. In hydrophobia, therefore, "the symptoms induced, on the principle of its inducing . . . *debility*," depended "on the application of *excessive stimulus*, and therefore was indirect; in contra-distinction to that, proceeding from the *abstraction* of usual stimuli, termed *direct*."

Mease, however, could not accept the stimulating power of the virus, for all the symptoms pointed to a debility or relaxation of the nerves. "It is, therefore, by a direct debilitating operation on the nervous system, that I suppose the virus to act in producing the disease."

Among the arguments advanced by Mease to prove that hydrophobia depended on debility were the analogy of the disease with tetanus and the injurious effects of debilitating remedies.

In the treatment of the disease he says: "Two indications are immediately pointed out: (1) To prevent the poison from being communicated to the system. (2) To counteract, or overcome its effects, after they have begun to appear."

Under the first indication he mentions excision of the bitten part; the application of the cautery; the application of caustic; the use of a long-continued stream of cold water, as first suggested by Haygarth[16] and strongly recommended by Percival; the use of the "Ormskirk medicine."[17] Besides these applications Mease advises the administration of preparations of iron and steel in conjunction with bark. Of these remedies he considers excision the only one which "affords the greatest security."

In the case of the second indication Mease considers "they are equally useless with those, that I have just been considering as advised for its prevention."

Mease was strongly opposed to venesection:

> Without further reasoning, I would observe, that my opposition to the remdy is founded on its *want of success* . . . Dr. Fothergill[18] it is true, and almost all other practitioners, have employed it largely; but with *what success?* Have they cured the disease? The numerous cases recorded cry out *No. Death and destruction* have followed as *surely* and *invariably* in every case where it was employed, as from a stab in the heart with a small sword. I defy a single instance of the real disease to be produced, where either a symptom was relieved, or a cure effected by it.

Besides the administration of strong tonics, Mease mentions the use of opium, ether and musk; also the free application of mercurial ointments to the throat and neck, especially when there is much difficulty in swallowing.

At first Rush agreed with Mease that the disease was due to debility,[19] but in his "Observations upon the Nature and Cure of the Hydrophobia" he abandoned his original position and asserted that both tetanus and hydrophobia were due to excess of action and called for debilitating remedies.

According to Rush the remote and exciting causes of hydrophobia in man are: "(1) Bite of a rabid animal. (2) Cold night air. (3) A wound in a tendinous part. (4) Putrid and impure animal food. (5) Worms. (6) Eating beech nuts. (7) Great thirst. (8) Fear. (9) Involuntary association of ideas. (10) Hysteria. (11) The tetanus. (12) The hydrocephalus. (13) The typhus fever."

Rush's theory of hydrophobia was: "(1) The disease in all rabid animals is a fever. (2) The disease produced in the human species by the bite of a rabid animal is a malignant fever."

Rush divided the remedies for hydrophobia into two kinds: "(1) Such as are proper to prevent the disease, after the infection of the rabid animal is received into the body. (2) Such as are proper to cure it when formed." For the first he recommended "cutting or burning out the wounded part, or by long and frequent effusions of water . . . to wash the saliva from it," the patient in the meantime being kept on a low diet.

As soon as the disease appears, "the first remedy indicated is blood-letting . . . To be effectual, it should be used in the most liberal manner. The loss of 100 to 200 ounces of blood will probably be necessary in most cases to effect a cure."

Rush acknowledges that in some instances bloodletting has been used without effect. This was probably due to its being used "out of time, or in too sparing a manner." Mercury is rejected by Rush as of doubtful efficiency.

It was the change in Rush's idea of the nature of the disease and method of treatment that caused Mease to write his "Observations" in 1801 which, like his inaugural essay, was dedicated to Rush.

It is not necessary to go *in extenso* into Mease's reply to Rush; only his reply to Rush's theory of the disease will be considered. Rush stated that the disease was a fever; his reasons were as follows:

"(1) The disease in all rabid animals is a fever caused (in dogs) by scanty food, extreme cold, and the sudden action of heat. These tend to cause a morbid condition in the animals." Mease denied that this was the case.

"(2) It prevails occasionally among dogs at those times in which malignant fevers are epidemic." In reply Mease says that during the Revolutionary War the malignant yellow fever ravaged the West Indies, yet there was no madness among the dogs. The same was true in regard to the Philadelphia epidemic.

"(3) They (dogs) exhibit the usual symptoms of fever, such as want of appetite, great heat, a dull fierce red or watery eye, indisposition to motion, sleepiness, delirium, and madness." Mease grants that all these symptoms may mark the presence of fever in dogs, but that they have no bearing on the effect of the canine virus on man.

The second statement of Rush was that the disease produced in man was a "malignant fever," and he enumerates a long list of symptoms to substantiate his contention. Mease says in reply: "It must also be recollected that the symptoms resulting from the action of the canine virus upon the human system are in many respects common to nervous affections, where no fever is present."

In the dedication of his "Observations" (1801) to Rush, Mease says: "I declare, if a single fair case of the disease be hereafter cured by the depleting plan, I will waive all theory on the subject, and adopt the practice."

In the closing paragraph of the "Observations" he again returns to the same subject, and is even more emphatic in his opposition to bloodletting:

> Upon the whole, although I have endeavored to invalidate the arguments advanced by my respected friend and preceptor, in favor of the inflammatory nature of the disease in question, and though I am firmly convinced at present of the force of my objections; yet I have no hesitation in saying that if any one well authenticated case be adduced of the success of copious bleeding, I will give it a fair trial, and if I find the practice to succeed, I will reject my present theory.

Rush did not, so far as I can learn, again discuss the subject in print; but he instigated Nathaniel Chapman[20] to take, in 1801, as his inaugural dissertation, "An Essay on the Canine State of Fever." This is, in the main, an echo of Rush's "Observations." The only new points brought out by Chapman are Webster's[21] support of Rush's contention that there is an "intimate connection of the canine fever, with the train of diseases which mark the period of pestilence," and "spiritous liquors" are added to the remote causes of hydrophobia in man (*sic*). Chapman protects Rush by giving Boerhaave as his authority, though there is no doubt that Rush gave this his hearty support.

Mease did not lose his interest in hydrophobia. He published several additional papers on the subject and was constantly appealed to by physicians in the matter of treatment. One of the popular remedies for the bites of snakes and mad dogs was the so-called "snake stone." This was a small piece of stone, or bone, which, when placed upon the bite, had the power of absorbing or charming away the poison.

Such a stone was owned by a Mr. Microw of Virginia and he offered it for sale at the exorbitant price of $2,000. In the *Philadelphia Medical Museum* for 1808, Mease protested against its use and purchase. In spite of his protest the stone was purchased at ten dollars a share and deposited with a certain Dr. Brockenbrough of Tappahannock, "as a central spot where it might be readily obtained" should the occasion arise. Mease indulges in a bit of sarcasm when he says, "Mr. Microw, no doubt, feels very snug at the receipt of $2,000; and the worthy stockholders are quite secure from even the apprehension of danger from all the attacks of rattlesnakes or mad dogs in their counties!"

In the *American Medical Recorder*, for 1819, Mease mentions numerous cases of hydrophobia that were treated, unsuccessfully, by bleeding, and for the third time he protests against the use of the "snake stone."

In the early part of the nineteenth century the case of James Cann occupied the headlines of the medical publications and of the lay press. Did he have hydrophobia? Did he have tetanus? If it were neither, what was it? Cann was bitten in June, 1819, by a dog supposed to be mad. A few days later he developed symptoms which resembled hydrophobia and was given an infusion of scull cap; he promptly recovered. In February, 1820, he again was seized with convulsions and in spite of scull cap and other remedies, he died. His death reopened the question and the discussion became very acrimonious.

Dr. Lyman Spalding[22] was largely involved in the controversy over the use of scull cap, and had an extensive correspondence on the subject. Dr. James Thacher[23] was consulted by Spalding and he was very sarcastic in his commentary on the subject. "A teaspoonful and a half in a quart of water, and drink half a pint morning and evening!!" Dr. Mease was also consulted by Spalding. He decided against the case being hydrophobia and in regard to the use of scull cap says: "If you reflect upon the weakness of the infusion given, you will agree with me in the latter opinion."

Had he lived until 1885, I doubt if anyone would have rejoiced more over the discovery, by Louis Pasteur, of the true nature of the "canine virus" and its treatment, than James Mease.

Mease graduated from the Medical Department of the University of Pennsylvania in 1792. The following year (1793) Philadelphia was visited by a most disastrous epidemic of yellow fever. The first case to be positively identified as yellow fever occurred on August 5, 1793. As Dr. Rush was leaving, on August 18, a consultation held with Drs. Foulke[24] and Hodge[25] in Water Street, "the three physicians noticed on the wharf, a heap of putrid coffee, which had been discharged from the damaged cargo of a vessel." About this harmless but foul smelling heap was waged a most violent medical controversy; for Rush saw in it the focus from which the epidemic arose. Between August 5 and November 10, when the epidemic ceased, it was estimated that about one-tenth of the population of Philadelphia died.

The radical method of treatment introduced by Rush gave rise to as great a controversy as the heap of decomposing coffee; although, if the opinion of the majority of the physicians be accepted, it was not as harmless. This consisted of the administration of a strong purge and copious bleeding of the patient. For the purge he used his famous "ten and ten" mixture; ten grains of jalap and ten grains of calomel. Finding this insufficient for his purpose he increased the jalap to fifteen grains, and of this mixture he gave one powder "every six hours until they produced four or five large evacuations."

Among the physicians who remained at their post in the city and one of the first to adopt this method of treating the disease, was James Mease. During the epidemic Mease, himself, fell a victim to the disease and came under the care of Rush. Rush says he "was suspended by a thread over the grave." In his account of the epidemic Cary[26] says: "Dr. Mease, in five days lost seventy-two ounces of blood, by which he recovered when at the lowest stage of the disorder." In the account of the epidemic given by S. Weir Mitchell[27] in his novel "The Red City," he says Mease was bled six times in five days. Mease suffered a second attack of yellow fever.[28] In his account of the epidemic of 1798, Rush says that in general the symptoms called for the loss of less blood than in 1793; but "in Dr. Mease it called for the loss of 162 ounces of blood." Notwithstanding the loss of so great a quantity of blood, Mease made a good recovery.

Following the 1793 epidemic the legislature of Pennsylvania took active measures to protect the port of Philadelphia from a recurrence of the epidemic. To this end it set aside State Island to be used as a health office, and provided for necessary buildings to be used for fumigation and for hospital purposes.

A health officer was to be appointed, who should live at the station, and a consulting physician was also to be appointed who could be called in, in doubtful cases. Twenty-four inspectors were to be appointed; five from the Northern Liberties; fourteen from Philadelphia; five from Southwark. These inspectors were to meet and divide themselves into four classes of six each, each class to serve in rotation one month.

That yellow fever could be imported is quite evident from the wording of the legislative act, though its local origin was not entirely abandoned.

According to legislative enactment Governor Mifflin[29] on May 3, 1794, appointed Dr. James Mease "Resident Physician of the Health-Office of the port of Philadelphia," with the following instructions:

> Sir,
>
> Having appointed you Resident Physician of the Health-Office of the port of Philadelphia, I cannot forbear impressing on your mind the importance of the trust which is confided to you. The terms of the law under which you act, and your recollection of the very awful scene that passed in Philadelphia during the last fall, will, I am persuaded, sufficiently point out the duties of your office, and insure a faithful and vigilant

discharge of them; but, in the organization of a new system, it may not be amiss to suggest to you, by a few general propositions, what appear to me to be the design of the legislature, and the expectations of our fellow citizens.

1st. Your constant residence at the Health-Office on State Island, is enjoined by the law; and cannot on any pretence be dispensed with, for, as no vessel may proceed to the city without your permission in writing, a due regard to the commerce of the port requires that all occasions of unnecessary delay and detentions should be scrupulously avoided.

2d. A critical examination of the ships and crews must in every instance take place: without this the forms of an official visit will neither satisfy your duty, nor quiet the apprehensions of the public.

3d. In every doubtful case you will rather err in point of caution than in point of risque—for it is certainly better that a temporary inconvenience should be suffered by a single vessel than that the public health should be endangered. It will be a relief to your own mind that the law affords you the aid of the Consulting Physician; and, therefore, whenever you entertain a doubt, you will with all possible dispatch resort to his advice.

4th. In your conduct towards the officers and crews of all vessels arriving in port, and towards the patients that may be placed in the Hospital, you will be firm, candid, and humane, considering the accommodations of all persons, with whom you shall have an official intercourse, as a duty next to that of preventing the introduction of pestilential or contagious (sic) diseases.

5th. You will cultivate a good understanding with the Inspectors, and the other officers of the Health-Office; and, generally, you will, in all respects, within the scope of your appointment, promote the beneficial objects of the institution.

To these instructions I shall only add, that it will give me pleasure to facilitate the execution of your desires; and to receive any useful information which you shall be pleased to communicate. You will remember in particular, that it falls within your province to ascertain whether any contagious or pestilential disease prevails in the foreign countries with which we trade, and that the earliest representations on that subject ought to be made, that, when necessary, I may enforce the precautions which the law prescribes.

I am, Sir,
Your most obedient servant,
Thomas Mifflin.

Philad. 3d May, 1794.
To Doctor James Mease,
Resident Physician of the
Health-Office, &c.

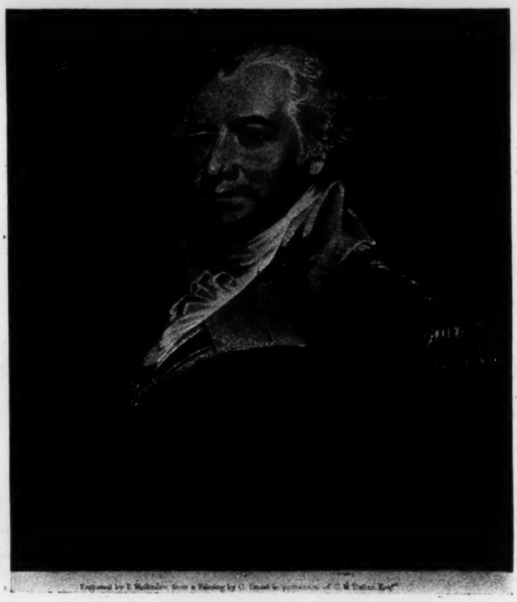


FIG. 2. THOMAS MIFFLIN (1744–1800).

Yellow fever was mildly epidemic in Philadelphia in 1794, 1795, and 1796. In 1797 it again appeared in a severe form and occasioned so much alarm in the city that Mease issued, August 18, 1797, an address to the citizens of Philadelphia:

To the Citizens of Philadelphia.

Health-Office, State-Island, Aug. 16, 1797.

A considerable alarm having been created in the city, respecting the prevalence of the Yellow Fever, in consequence of the death of some persons in the neighborhood of Penn and Pine streets; and as some have attempted to trace the disease to certain vessels from the West Indies, it is necessary for me to assure the citizens, that as every vessel entering the port of Philadelphia, from a foreign port, undergoes an examination at their arrival off this place, I will pledge my reputation, that no person, ill of yellow fever, or other contagious disease, has passed through my hands from sea into the city, during the present summer.

The armed ship Hinde, from Cape Nichols Mole, has been accused of importing the disease,* although that vessel lay at a distant part of the city from Pine-street wharf. It has been asserted publicly (and by those whom I would have expected would have ascertained the fact before circulating a report, so absurd in its nature, and injurious to my character) that the above vessel was never examined previously to her arrival, but permitted to pass, after enquiring where she was from!! The falsity of this story may at once be proved, by referring to the files of the Health-Office, Philadelphia, where the usual official interrogatories of the Captain of the Hinde are preserved, which are proposed to the masters of all foreign vessels at their arrival at the Health-Office, State-Island.

The ship Arethusa, from Havannah, in ballast arrived healthy, and continued so after five days quarantine, on the 24th of July, when she came up to the city. She has also been accused of infecting the people of Penn-street; but it has never been proved that any of the citizens who have died were nigh that ship. The Pilot, it appears, from imprudently sleeping on deck, during the quarantine, was seized with a fever on his way up to the city. Dr. Currie, his physician, informed me, that it was attended with inflammatory bilious symptoms, that he was well in five days. For the satisfaction of the public, I shall make a future statement of the deaths on board this ship during the voyage, before her arrival at Havannah.

James Mease,
Resident Physician of the Port.

Under the date of August 21, 1797, Dr. William Currie[30] issued a lengthy address to the citizens of Philadelphia, in which he criticises Mease for permitting ships to pass quarantine. Currie does not doubt that Mease has stated the facts as he believes them to be; but owing to the propensity of seamen to smuggle, from the "farcical period proscribed by law for performing quarantine" and from the negligence on the part of "masters of vessels . . . to throw overboard the clothing and bedding of seamen that die on board their vessels . . . and from the most perfect resemblance of the fever to the yellow fever of the West Indies," he believes the disease to have been imported though "no person ill of the disease, had arrived from sea." Currie goes on and adduces facts to support his thesis of the disease being imported by the ship Arethusa inbound from Havanna.

Mease remained as resident physician of the Health-Office at State Island from May, 1794, until May 1, 1798, when Willian Allen assumed its duties. I have not been able to ascertain whether he resigned the position, or whether he failed to be reappointed.

Sporadic cases of yellow fever occurred in Philadelphia in April, May, June and July, 1798. On July 21, the ship Deborah, from the West Indies, anchored off Kensington and, according to Rush, the foul air which escaped from her hold produced several cases of yellow fever in that village. This, no doubt, had its influence on the city commissioners of Philadelphia who decided, on July 31, to clean the gutters and wash the streets three times a week. In August yellow fever appeared in nearly every part of the city especially "where there was greatest exhalation from foul gutters and common sewers." On August 9, it was officially declared to be epidemic by the Health-Office.

On August 15, a letter was publicly addressed to Dr. Rush by Drs. Philip Syng Physick[31] and Samuel Cooper[32] asking his advise in treating the cases of yellow fever as they occurred in the present epidemic.

The reply of Dr. Rush was lengthy and among methods recommended he says:

> The medicines I use for *shaking* the gall bladder and bowels and discharging the contents, are, tartar emetic, gamboge, jalap and calomel, combined or given separately, and, in small, or large doses, according to circumstances . . . No two epidemics are exactly

---

*The ship Hinde arrived at Philadelphia on the 3rd instant, and lay in the Stream till Sunday the 6th, the day after the decease of Mr. Nathaniel Lewis.

alike . . . That of 1797 differed from that of 1793 and the present epidemic differs materially from both.

In August and September the weather was hot and dry: "Moschetoes abounded." This observation by Rush and his assigning "ponds of stagnant water" as one of the causes of the epidemic, is of more than passing interest.[33] That they had any relation to the spread of the disease did not occur to him, for he says: "The origin of this fever was from the exhalations of gutters, docks, cellars, common sewers, ponds of stagnant water, and from the foul air of the ship formerly mentioned."

Mease showed the true spirit of a physician by remaining in the city; on September 5, he was appointed to attend the poor of the Northern Liberties and northern part of the city in conjunction with Dr. Kinlaid, late of the West Indies.

The number of deaths in 1798 was between three and four thousand, nearly as many as in the 1793 epidemic, though, according to Rush, four times as many individuals were affected in 1793 as in 1798. The difference in the mortality was occasioned, he claimed, by the liberal use of the lancet in 1793, and the prejudices against it in 1798, due to the publications against its use in 1797.

The opposition to Rush and his method of treating yellow fever in the 1793 epidemic, led to his resignation from the College of Physicians, November 5, 1793. The resignation was due to the reply sent by a committee, appointed by the College, to a letter from Governor Mifflin asking its advice concerning methods to prevent a recurrence of the epidemic. Rush was not appointed on this committee and it reported in favor of the importation of the disease and against its local origin, as advocated by Rush.

Following the 1797 epidemic, Governor Mifflin again requested information from the College and at the same time addressed a letter to Rush, from which I take the following abstract:

> I have requested the opinion of the College of Physicians on the subject, but, as I understand that you and many other learned members of the Faculty do not attend the deliberations of that institution, the result of my inquiries cannot be perfectly satisfactory without your co-operation and assistance.

The reply by Rush was signed by himself and twelve of his associates. Nearly all of the signers were young practitioners: but the names of John Redman Coxe[34] and Philip Syng Physick are included in the list of signatures.

In January, 1798, the signers of the report by Rush, and a few like-minded spirits, formed the Academy of Medicine of Philadelphia, an organization which had an ephemeral existence. At the second meeting of the Academy the name of James Mease appears as one of the members. On December 17, 1798, Mease read the report of a committee appointed to draft a reply to the publication of the College of Physicians and January 15, 1799, Mease read an eulogium on Dr. Cooper, one of the members who remained in the city and the first physician that died during the epidemic. At the meeting of the Academy for the election of officers, Mease was made a member of the Committee on Correspondence. From this it appears that Mease took an active part in the affairs of the Academy during its short life.

The "ten and ten" powders, together with the copious bleeding made use of by Rush in his treatment of yellow fever, aroused a spirit of antagonism not only on the part of many of his professional brethren, but also on the part of some of the laity. This found a ready mouthpiece in William Cobbett[35] (Peter Porcupine) who published a paper called *Peter Porcupine's Gazette*, in which he slandered Rush and his method of treatment. The vituperations of this publication became so pronounced that the friends of Rush urged him to bring suit against Cobbett. This he did, and the jury awarded him damages of $5,000. Rush did not appropriate this to his individual use, but distributed it among the poor of the city. Cobbett, having been defeated and abandoned to his fate by those who had instigated his attack on Rush, withdrew to New York, where he established another paper, devoted to the same purpose, called *The Rush Light.*

Although Mease differed from Rush in the treatment of hydrophobia, it did not lead to any estrangement. He was an ardent supporter of Rush and his method of treating yellow fever, was cared for by Rush when a victim of the epidemic and was a witness for Rush in his suit against Cobbett. This, no doubt, and the following incident, engendered the attack made by Cobbett on Mease in the opening number of *The Rush Light.*

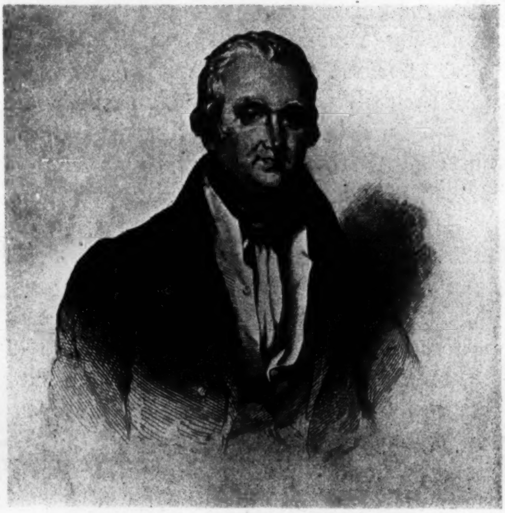


Fig. 3. William Cobbett (1762–1835).

On September 11, 1797, while Mease was resident physician of the Health Office, the following item appeared in the *Daily Advertiser:* "We understand the Mayor of Burlington has complained to the Governor of Pennsylvania of . . . vessels being permitted to pass the city *without performing quarantine.*"

This item occasioned a number of letters being addressed to the editor of the *Philadelphia Gazette* attacking Mease for allowing vessels to leave quarantine and proceed to Burlington.

On September 14, the editor of the *Philadelphia Gazette* closed the discussion with the following:

> Upon this subject the Editor has only to observe, that the means of preventing the evil complained of, must remain with the legislature of New Jersey—It is plain, to the most common understanding, that no authority can exist in the Governor of Pennsylvania or his health officers, acting agreeably to his proclamation, to prevent vessels leaving this state and going where they please—to Jersey, or any other State. Enough having been said upon this subject, we shall now close it.

The subject was, however, reopened in the next issue of the *Gazette,* September 15, by the publishing of the letter of the Mayor of Burlington to Governor Mifflin. As the original is in my possession I give it in full.

Burlington, September 4, 1797.

Sir:

The anxiety of the Inhabitants of this town has been for some days considerably excited by a circumstance which they cannot but consider as contrary to the intention of the Legislature of the State over which you preside and of the letter as well as spirit of your proclamation of the 15th August last which evinces as prudent an attention to the health of the Citizens of Pennsylvania, that the Corporation of Burlington on whose behalf I have the honor to address you, rely on your assistance in preventing the introduction of contagious disease into the State of New Jersey by any evasion or misconstruction of the Laws of Pennsylvania, on which we have hitherto relied for protection from that awful calamity.

Two vessels now lying at our wharves have arrived in this Port without complying with the directions of your Proclamation. The Brig Pilgrim one of those vessels from Port au Prince, the Captain and mate of which died as we are informed of a contagious disease in the West Indies, laid five or six days at the Fort, when the Resident Physician permitted her to depart having ten passengers on board, on the mere assurance of the Captain and owner that she would proceed in this place. We apprehend the words of your proclamation to admit of no discretion with respect to any Vessel coming from the West Indies, but absolutely requiring ten days Quarantine. From the annexed copy of a letter from Doctor Mease to Captain Smith a discretion appears to have been exercised, and as we learn from the Captain on the mere assurance of the owner that she should not go to Philadelphia, although it evidently appears from her papers and by the acknowledgment of the Master that she was bound for that port.

The Schooner Eutaw Captain Brewster from Cape François (the other of those Vessels) performed but four days quarantine, and arrived here at the same time with the Pilgrim Captain Smith. We do not learn that the Captain has any written permission from the Resident Physician at the Fort to proceed hither. Several of the late Philadelphia papers contain the following paragraph "The Schooner Eutaw, Brewster from Cape François has gone up to Burlington to finish quarantine." Whether this permission of the Resident Physician proceeds from an opinion that the Laws of Pennsylvania do not admit of his detaining a vessel when a verbal assertion of an owner or Captain in opposition to her papers is made that she is bound to a Port in New Jersey, as has been hinted by the Captains now here, we conceive it in no other light than an evasion of the Law which will, if tolerated frustrate the intention of the Legislature, and may possibly be attended with fatal consequences to us.

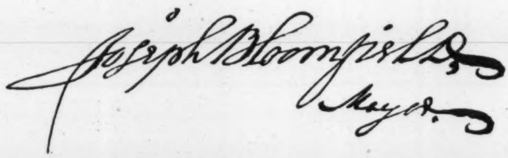
We have been induced to lay the matter before you Sir from a confidence that it will receive from you that attention which with pleasure we observe has been extended towards the proper means of preventing the introduction and increase of this destructive disease, and we are the more solicitous that early and decisive measures be adopted as we learn that several other vessels are daily expected here.

At the same time that a faithful discharge of our duty dictates the propriety of adopting every prudent measure for the safety of our fellow citizens be assured Sir that we are affected by the most lively sympathy at the reflections excited by the misfortunes of the Citizens of Philadelphia, many of whom are connected with us by the strongest ties of affection and friendship. To those of them amounting to several hundreds who have chosen this place as an Asylum we shall feel pleasure to afford every accommodation in our power and we are persuaded that it is unnecessary to urge their safety as an additional inducement to the adoption of the most speedy precaution to prevent a future evasion of your Laws and to ensure our own safety.

FIG. 4. JOSEPH BLOOMFIELD (–1832).

With the highest respect I have the honor
to be your Excellency's most
obedient servant
By the order of the Corporation of the City
of Burlington,
Joseph Bloomfield,[36]
Mayor.

His Excellency Thomas Mifflin, Esqr.
Governor of the Commonwealth
of Pennsylvania.



Joseph Bloomfield
Mayor.

FIG. 5. JOSEPH BLOOMFIELD'S SIGNATURE, WHEN MAYOR OF BURLINGTON, TO HIS LETTER TO GOVERNOR MIFFLIN.

On the back of the letter is a certified copy of the order from Mease to Captain Smith, which reads as follows:

Capt. Smith

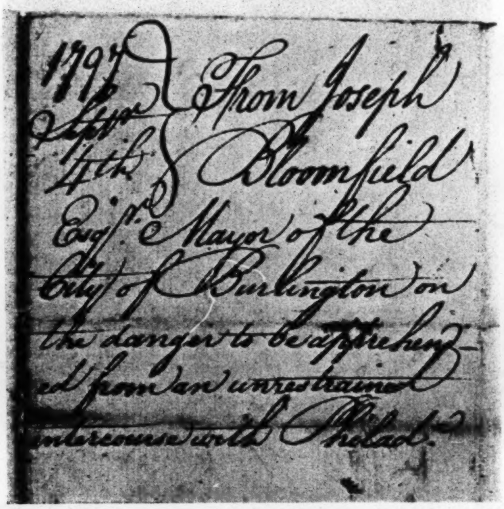
I send you a letter from your owner Mr. Gerard. He desires you proceed to Burlington immediately, and he will go on board at Kensington if the tide carries you so far. You may therefore get under way. If you do not reach the City you are not to land any of your passengers on the Pennsylvania side as that will subject you to a fine.

Yours
(Signed)
Jas. Mease
Resident Phys. Port.

Aug. 31, 1797.

I certify the above to be a true copy from the original handed to me by Capt. Smith. Witness my hand Sept. 4, 1797.

Wm. Coxe junr.
Recorder of the City of Burlington.



1797
Sepr
4th
From Joseph
Bloomfield
Esqr. Mayor of the
City of Burlington on
the danger to be apprehend-
ed from an unrestrained
intercourse with Philada.

Fig. 6. Endorsement on Back of Mayor Bloomfield's Letter to Governor Mifflin.

In addition to the certification by the recorder of Burlington, the letter bears on its back the endorsement (Fig. 6) which was probably made by Governor Mifflin's secretary.

The following day Governor Mifflin replied to Mayor Bloomfield as follows:

Sir.

I have the honor to acknowledge the receipt of your letter of yesterday, and to lament the occasion of the alarm, which it justly expresses, in consequence of a conduct on the part of the Resident Physician of the Health Office of Philadelphia, that is, in my opinion, HIGHLY IRREGULAR. I have directed an inquiry to be immediately instituted into the circumstances of the two cases, to which your letter refers; and you may assure our fellow-citizens of New Jersey, that any measure which endangers their health or distresses their feelings, can never be sanctioned by the laws of Pennsylvania, and will, so far as my powers extend, be effectually prohibited.

Accept my best thanks for the sympathy with which you deplore the afflictions of the citizens of Philadelphia, and believe me to be with great consideration and esteem,

Sir,
Your most obedient, humble servant
Thomas Mifflin.

Philadelphia, 5th Sept. 1797.
To Joseph Bloomfield, Esq.
Mayor of the City of Burlington.

On September 21, a few days after the publication of Mayor Bloomfield's letter, Mease published a long letter in reply, in which he says that on reflection he was convinced that his authority only extended to vessels entering the ports of Pennsylvania. Besides this the owner of the vessel informed him that Stephen Girard,[37] a member of the Board of Health, declared that the vessel might with propriety proceed. Mease further declares that he has no power to prevent vessels from departing.

September 25, a long communication by "Candidus" appeared in the *Philadelphia Gazette*, in which an attempt was made, with some degree of success, to show that Mease's conduct was "highly irregular" in that while passing to Burlington, a vessel must approach the City of Philadelphia and pass for a considerable distance through the jurisdiction of Pennsylvania. The questionable going on board of Mr. Girard was also discussed, and it was shown that he might, on his return to Philadelphia, carry contagion.

Replying to this communication, Mease says that he has jurisdiction only over vessels bound to the port of Philadelphia. The vessels complained of had *not* "arrived in the port" but "*merely in the river* upon which our port is situated." He again claims that he has no jurisdiction over vessels bound for Burlington, neither has he any right to prevent vessels originally bound for Philadelphia leaving the quarantine and proceeding to some other state.

Cobbett took advantage of the opening these two incidents gave him and launched his attack on Mease and Rush.

RUSHITE FRANKNESS AND GRATITUDE, EXEMPLIFIED IN THE CONDUCT OF DOCTOR MEASE, THE PUPIL, THE FRIEND AND ONE OF THE WITNESSES OF RUSH

> Read this, my young blade, and then to dinner
> With what stomach you may.

This Doctor Mease was one of those men who volunteered in the glorious service of retailing to a court and jury certain words, which, in a tête a tête conversation, he heard me utter, respecting my resolution to punish Rush for his insolent appeal to the law against Mr. Fenno and me. My counsellor, Mr. Harper, who seemed anxious to find something to commend in every one, who gave satisfactory proofs of being my enemy, was kind enough to observe, that the three Witnesses (Mease amongst the rest) were "gentlemen of great respectability for THEIR AGE." What he meant by tacking on the praise, "for their age," I cannot think. Did he mean, that they were rendered respectable by their grey locks, or that considering their beard-less chins, they were very respectable fellows? Either meaning was equally nonsensical, for they were all three about thirty years of age; so that, "for their age," was an unmeaning expletive, clapped in to ward off the charge of having bestowed on these volunteer heroes his unqualified approbation.

But, however respectable Mease might be for his age, I am persuaded, that after the relation of the following anecdote, he will be more respectable for his frankness and gratitude.

Mease was, in the Yellow Fever of 1797, Physician of the port of Philadelphia, it was his business to inspect all entering vessels, and if they had sick on board, or came from certain places, it was his duty to make them perform a quarantine opposite the fort. That he was extremely fit for this post every one must allow, who considers, that he believed, with his famed preceptor, that the Yellow Fever was generated in the air, and that it could not, in any case whatever be imported. And who can enough admire the submissiveness of the poor sovereign people, who, without daring to remonstrate, suffered their health and their lives to remain at the mercy of such a man!

The "respectable" Mease, to whom the governor, Mifflin, had given the post as so much of the public money, which he was obliged to bestow on some one else than himself, acted as might be expected. Very few vessels were stopped; and the board of health having forced Mifflin to issue a proclamation forbidding the entrance of certain vessels into the ports of Pennsylvania, Mease suffered them to go by the fort, by which they were enabled to get up to Burlington in New Jersey. The Mayor of Burlington complained of it to Mifflin, who answered his letter in expressions of regret at the conduct of Mease, which conduct he called "*highly irregular*." That his epithet was far too mild to be applied to an act of disobedience, so audacious in itself and so dangerous in its consequences, every one must perceive. Indeed, the poor sovereign people of Philadelphia, though they dared not speak out, did, in this instance, grumble most bitterly; and some of them had even the courage to declare (in a *whisper*), that the insolent Rushite ought to be turned out of this place, in which opinion the reader will, I think, perfectly agree with them.

So thought not, however, the pupil of Rush. A man who had learned to bleed and purge under the Pennsylvanian "Hippocrates," was not, though in terms the most gentle, to be censured with impunity. But, the young man was, for some time, at a loss for a mode in which to obtain vengeance. Mifflin though sunk to the lowest ebb, had yet spirit enough left to beat forty Rushites together; and he had, besides, the power of reducing Mease's revenue from about 900 dollars a year to *nothing*. Duly impressed with these circumstances, and wisely resolving still to go to bed with a full belly and whole bones, this "gentleman respectable *for his age*," fell upon a way of giving poor Mifflin a stab, without letting him see the base and perfidious hand by which it was given; in pursuance of this his intention, he sent me the following note, and paragraph, which I now copy from his own hand-writing.

Dear Sir,

If you do not think *the inclosed paragraph* proper to come out in *your name*, (in which I have taken

> the liberty to write it and which I hope you will excuse) *do not insert it*, but otherwise I would thank you to publish it.
>
> Your friend,
> James Mease.
>
> Mr. Wm. Cobbett.
> Sept. 20.
>
> [Paragraph.]
>
> Peter Porcupine has this day published Dr. Mease's letter to the Mayor of Burlington, explaining the principles upon which he acted in permitting certain vessels *bound to* Burlington [a wretched lie!] to pass his station without performing quarantine; and, in *Porcupine's opinion* [oh! you impudent, lying dog!] is fully satisfactory. As an officer of Pennsylvania, Dr. Mease, would have acted in a very arbitrary manner had he done otherwise. [What Cat's paw, what a quibbling, what a villanous miscreant this fellow wished to make of me!] The Governor says Doctor Mease's conduct was *highly irregular*, and that he will sanction no act that may injure the feelings of the citizens of Burlington; but this *we all know* is mere stuff, for that he [the very man who had given him his place!] does not care a cent for their feelings *provided his own depraved sensations are gratified by the brandy-bottle!* The more the Governor's principles are developed, the more it is discovered, that he is a rank Aristocrat, under the cloak of a Democrat. Hence he wishes to make his "Proclamation" extend to Jersey; though the law [a subterfuge worthy of a Rushite], it appears, which authorizes him to issue this proclamation, says it shall not. When in the drunken frolicks with the *rabble* [this fellow was a declared Democrat!] in 1794, in which the governor presided [and where Mease was one of the "rabble"!], to celebrate *the murders and assassinations of the cut-throat French*, he drank "laws and no proclamations:" but here we see he wishes proclamations to go beyond laws.

If any thing more than this be wanted, I am ready to prove upon the oaths of myself and my clerk, that Mr. Harper's "gentleman of respectability for his age" came afterwards to me in person, requested me to publish the above paragraph, and told me that he wished to keep his own name out of sight, *because people knew he* was under great obligation to Mifflin! ! !

> Never pray more, abandon all remorse,
> For nothing cans't thou damnation add
> Greater than that!

Such, reader, is the *pupil* of Rush; such is the man whose *principles* Rush extols, of whose *friendship* he boasts, and of whose perfidious aid he avails himself, in order to oppress his opponents, and awe them into silence! It is not, I trust, necessary for me to say, that I refused to publish this paragraph, and become the instrument of the mean and assassin-like vengeance of this ungrateful wretch; neither is it necessary for me to say how much he hated me for the refusal, nor what were his motives for volunteering in that act of abominable baseness which has conjured up this blasting tale from oblivion.

Were not Mease a thorough-paced Rushite, he would, upon the sight of this pamphlet, go out, saddle his ass, and follow the example of Ahitophel; but, he knows that he is still as good as his brethren; he knows that there will not be a man less to take him by the hand, that he shall still be embraced by Rush, and, if occasion serve, still eulogized by Harper. Should the young man, however, contrary to my expectation, have one grain of grace left, I have two servant girls (not *blacks*), either of whom has a pair of garters at his service.

End of No. 1, (*Rush Light*) 15th Feb. 1800.

Mease had quite an extended correspondence with Dr. Lettsom of London. Under date of June 1, 1796 he wrote Dr. Lettsom defending Washington for accepting a second term as president. He said Washington had nothing to gain but "might by an unfortunate measure, lessen the reputation he had already acquired." He touches a delicate subject when he writes:

> Happy, thrice happy, have been the consequences of his (Washington's) prudent conduct throughout this important period, in restraining the rash enterprises of our justly-enraged citizens, against the depredators of your government, for the seizure of their property and persons, without a pretext of right. . . . Had any other man been at the helm we must have certainly been involved in war . . . I do not think with you that the annual or biennial elections of our Presidents would be attended with beneficial consequences. . . . The German constitution (if they have any) is so different from ours, that a comparison will not hold good, and the dismemberment of a single State from the whole Union, could not be effected but by force, and by force would be obliged to submit to the constitution which its representatives had contributed to frame.

Mease did not live to see the actual working out of his statement in 1861–65.

Writing October 29, 1797, from the Health Office, Mease comments on the epidemic of yellow fever of that year. After stating that "most persons believe it was imported in one or two vessels," he maintains its local origin arising from "the stench emitted from the *Snow Navigation*, that arrived on the 24th July, after a very long passage, with a cargo of a variety of vegetable and animal matters in a state of putrefaction."

He returns to the same subject in a letter dated Philadelphia, December 12, 1798, and says that while east of Philadelphia the local origin is universally acknowledged: "In Philadelphia the citizens are still divided; but the superstitious notion of the importation of the disease is daily dying away." He mentions that in the course of the next year the city will be supplied with water "either from the Sohuylkell or Delaware."

On February 15, 1799, he writes: "Our Academy of Medicine, instituted Jan., 1798, have succeeded by their repeated publications in convincing the citizens of the domestic origin of the fever from exhalations," but "as usual the College of Physicians endeavoured to trace the disease to the importation of foreign contagion." Water had not as yet been introduced into the city, but measures were being taken to bring in a plentiful supply, "from a source thirteen miles distant."[38]

There is a letter dated Philadelphia, June 5, 1802, which must, from the context, be wrong; for it describes the 1793 epidemic. The number of deaths are given as "between 4 and 5,000." Mease refers to his "two severe attacks"; he also mentions that Rush asserted that the disease "proceeded from a quantity of damaged coffee" and that the disease had proved fatal to Drs. Hutchinson[39] and Pennington.[40] Both of these physicians died in 1793. His appointment as physician to the port is also mentioned. These facts seem to indicate that the date should be 1794, and not 1802 and that it should be the first of the letters dealing with the yellow fever epidemics.

In his letter of November 24, 1803, Mease gives utterance to a note of triumph when he writes: "The College of Physicians was entirely silent as to its [yellow fever] origin; but this is certain, that not one attempt has been made to trace it to importation, no vessels arrived during the whole summer, to which it could, with any reason, be ascribed."

Benjamin Rush died April 19, 1813, and it is to Mease who "had been his pupil, had grown old in his friendship, and had nursed him through the whole of his last day" that we owe the only authentic account of his last illness and death. This is contained in a letter written to Dr. Lettsom under date of December 21, 1815. This was first published in the *London Medical and Physical Journal*, Volume XXXVII. It was republished in Pettigrews'[41] "Memoirs of Lettsom" and appeared in this country, for the first time, in Thacher's "American Medical Biography."

Following the death of Rush, Lettsom issued a small brochure of sixteen pages entitled "Recollections of Dr. Rush." Certain inaccuracies in this publication caused Mease to write the following letter:

Philadelphia, Dec. 21, 1815.

Dear Sir,

I had lately the pleasure to receive your "Recollections of the late Dr. Rush," for which I thank you. I was much concerned, however, to find, that you had given currency to the incorrect statement propagated after his death, "that he had mistaken his disease for the pleurisy, and was bled freely, which was thought to have occasioned his death." Your correspondent was unfortunately misled by common report, which is too often incorrect; and in the present instance this incorrectness is to be particularly regretted, because it favours the diffusion of error, and implicates the medical judgment of a man, who was more extensively consulted by his countrymen than any other physician that ever lived in the United States; and it gratifies the little and mean spirits among us, who exulted in the report of his having fallen a victim to his attachment to the depleting system, and who will be glad to find that the report has been circulated in Europe. Dr. Rush was not afflicted with "*Typhus or Spotted Fever,*" but a true pleurisy; and the blood, so far from being "*freely*" taken, amounted only to ten ounces in quantity: more was not taken away (except locally), although the pain in his side, after having been relieved by the operation, returned with severity; and the disease ended as inflammatory affections of the lungs often do in such habits as that of Dr. Rush. The case was strictly as follows:

Dr. Rush in the early part of his life, had been subject to a cough, which he kept under by occasional small bleedings, great temperance in diet, and by a careful accommodation of his dress to our inconstant climate. He had been attacked by a cough several months previously to his last illness, and in consequence of it, he had abridged his customary proportion of animal food (in the use of which he was at all times very moderate), and left off entirely the use of wine.

The effects of these retrenchments alone would have been felt by frames more vigorous than that of Dr. Rush; but in his case, and at his time of life, they could not fail greatly to diminish the muscular power, and increase the excitability of his system, to the causes that produced the fatal disease. Other causes cooperated. During the time alluded to, he was engaged in extensive practice, had performed his tour of duty at the Pennsylvania Hospital, and at the close of the session in March had given two lectures daily, of an hour each: he also assisted in the examination of a large class of candidates for medical degrees in the University of Pennsylvania, twice a day, and at night he either was engaged in study, or in answering the numerous letters of applicants for medical advice from every part of the continent. Thus by such unremitted corporeal and mental exertion he wasted the powers of life, and pre-disposed his system to the operation of the variable atmosphere that caused the affection of his lungs.

He was attacked by his last illness on the night of the 14th April, 1813. I had been absent from the City, and on my return called to see him in the evening. I found him alone with a lecture before him, and a pen in his hand. Having before hinted to him that he ought to relax in his studies, I said, "What, Doctor, always at your studies?" he replied, "Yes, Doctor, I am revising a lecture, for I feel every day more and more like a dying man." Alas! how prophetic his words! Upon my observing that I hoped he did not feel indisposed, he replied, "No; but at my age I deem life particularly precarious, and I am, moreover, anxious to leave my manuscripts as perfect as possible for the benefit of my son." We conversed for an hour or more upon various medical subjects, and I heard him read an affectionate letter to a relation in a distant State; who had asked his opinion upon an important occasion. A person having called for a letter of advice, I retired to another room, where I remained near an hour with his family. Upon returning to him, I found him sitting with his feet close to the fire, and after a moment's stay, I wished him good night. Mrs. Rush came in as I went out; and I subjoin her own statement of the progress of his attack, and the remedies used. This statement was drawn up at my request, that there might be no doubt as to the accuracy of every particular on the distressing subject.

The account given by Mrs. Rush is the one usually seen in full, or in part, in nearly all sketches of Rush. It gives somewhat in detail the treatment carried out by his attending physicians, Drs. Dorsey[42] and Physick. Mease in closing his letter says: "It was the greatest absurdity to suppose that any man, acquainted in the least with medicine, could mistake pleurisy for typhus, the symptoms of which diseases are so different." He hopes that he has corrected, satisfactorily, the error as to the cause of the death of Rush.

Mease was a very versatile man. Many of Philadelphia's intellectual and humanitarian institutions are indebted to him for the generous support he gave them, either as a member or as an official. He was a member of the American Philosophical Society. He took an active part in the foundation of the Philadelphia Atheneum, the purpose of which was "to collect books of reference on politics, literature and science, maps and dictionaries," and became its first vice-president. He was one of the managers of the Company for the improvement of the Vine, organized in 1802, and "chose an excellent situation in the center of the ground plan of Philadelphia, on the line of Cherry Alley, and had three thousand plants." In 1807, he was associated with a group of men in forming the Philadelphia Mineral Water Association, whose business was the manufacturing of artificial selzer, soda, Saratoga and other waters to be dispensed from fountains or furnished in bottles. The soda fountain habit had not become established at that time in Philadelphia and the venture failed, although the value of the waters was certified to by Drs. Rush, Dewees,[43] Dorsey and others. On the other hand Daniel Drake[44] on his return from Philadelphia, in 1816, made an immediate success of his "soda fountain" in Cincinnati.

In 1811, Mease was secretary of the Agricultural Society, and in the issue of Poulson's *American Daily Advertiser* for November 1, 2, 3, 1813, he published a notice of an introductory lecture to be given in the room of the Agricultural Society, Philosophical Hall, "Upon Comparative Anatomy and Diseases of Animals"; in the November 6 issue of the same paper, notice was given that the "lectures will be given every Tuesday, Thursday, and Saturday afternoon at half past three o'clock." This introductory lecture, published in 1814, consisted of fifty-one pages and was illustrated with one plate. In 1827, he joined in a call for the formation of the Horticultural Society, and he and Nathaniel Chapman were two of the four vice-presidents.

Mease never held any official appointment in the University of Pennsylvania but in 1816, and again in 1817, the use of the college building was granted him to deliver the inaugural of a course of private lectures on pharmacy. This eventually led to the establishment, in 1821, of a course by the medical faculty leading to the degree of Master of Pharmacy, and indirectly to the organization of the Philadelphia College of Pharmacy.[45]

The literary work of Mease was extensive. In 1795, he wrote a biographical sketch of John Jones[46] which was prefixed to the third edition of his surgical works. This was republished in 1828, by Thacher in his "American Medical Biography." He edited the revision of the fourteen volumes of Thomas Smith's "Wonders of Nature and Art" and, with additions, the five volumes of Willich's "Domestic Encyclopaedia." In 1807, he published "A Geological Account of the United States," in 1811, "A Picture of Philadelphia" and the following year completed the three volumes of his "Archives of Useful Knowledge." In 1821, he published "A Description of Some of the Medals Struck in Relation to Important Events in North America, before and since the Declaration of Independence by the United States." In 1822, he issued in the form of a brochure, his paper "On the Causes, Cure, and Prevention of the Sick-Headache"; this proved to be a popular essay and it reached a fifth edition. In 1828, he published his "Observations on the Penitentiary System and Penal Code of Pennsylvania," a paper which did much to modify existing conditions; in 1829, the article "Russia" in the Philadelphia edition of Brewster's "Edinburgh Encyclopaedia," and in 1836, "William Penn's Treaty with the Indians." In addition to these, he published a number of short papers on agricultural subjects and one on the rearing of silkworms.

On July 3, 1800, James Mease was married by Bishop William White, to Sarah, daughter of Major Pierce Butler,[47] United States senator from South Carolina. By her he had five children, two daughters and three sons. One of the daughters, Frances, married General George Cadwalader,[48] of Mexican and Civil War fame. Of the sons, Thomas died in 1823, and the other two, John and Butler, had their name changed by act of legislature to Butler. The occasion of this change was the following provision in the will of their grandfather, Pierce Butler:

Provided always that this or any other devise in favor of said grandsons is upon condition that they shall as they arrive at 16 years cease to be called Mease and use the surname of Butler, should they refuse then I give Estate for them to the eldest son of my son Thomas Butler.

Pierce (Mease) Butler married the actress Frances Ann Kemble,[49] in 1834. The marriage proved unfortunate and they were divorced in 1848.

As already stated, James Mease died in Philadelphia, May 14, 1846; with the assumption of the name Butler by his sons, the name Mease no longer appears in his branch of the family.

NOTES

1. Benjamin Franklin. Born, 1706. Died, 1790. Statesman and philosopher. Owing to a disagreement with his brother, he went first to New York and then to Philadelphia, which became his permanent home. He established the Philadelphia Library and the American Philosophical Society. He took an active part in founding the early educational institution which later became the University of Pennsylvania. He also was instrumental in establishing the Pennsylvania Hospital. He served as postmaster-general for the colonies and, though he tried to avert the Revolutionary War, he was one of the signers of the Declaration of Independence. He was a delegate to the convention which drew up the United States Constitution. See Thorpe, F. N. Benjamin Franklin and the University of Pennsylvania, Washington, 1893; and Pepper, W. Medical Side of Benjamin Franklin. Philadelphia, 1911.

2. Thomas and Richard Penn. Sons of William Penn by his second marriage. Thomas was the elder. John F. Watson, in his "Annals of Philadelphia and Pennsylvania in the Olden Time" (Phila., 1857), says he has received a favorable impression of Thomas. Both of the proprietors, however, made themselves unpopular "by instructing their Governors not to assent to any laws taxing their estates in common with the people."

3. For an extended account of the early history of the University of Pennsylvania prior to 1753, see the November, 1923, number of the *Alumni Register of the University of Pennsylvania.*

4. John Morgan. Born, 1735. Died, 1789. He received his A.B. from the College of Philadelphia in 1757. Served as apprentice to Dr. John Redman. In 1760 he went abroad. Studied with the Hunters in London and then went to Edinburgh where he took his M.D. in 1763. During the next two years he traveled in various parts of Europe, returning to Philadelphia in 1765. Immediately after his return, in April, 1765, he took steps to establish a medical school in this country, and on May 30, 1765, he delivered his celebrated address. His efforts were successful and he was appointed the first professor of medicine in this country. Following the discharge of Dr. Benjamin Church, for treason, from the medical directorship of the Army, Morgan was appointed in his place. Morgan was a straightforward, independent man, free from humbug and strictly honest. These characteristics occasioned much jealousy on the part of the regimental surgeons and led to unjust charges against him; these, taken in connection with an inefficient Congress, led to his being discharged from his position as medical director. In addition to this he had to contend with the craftiness of his colleague, William Shippen, aided, it has always seemed to me, by Benjamin Rush. It is a pleasure to record that in 1779, Congress acknowledged his innocence and gave him complete vindication. See article by Francis R. Packard in Kelly and Burrage: American Medical Biographies, Baltimore, 1920, and Packard, F. R. History of Medicine in the United States, Philadelphia, 1901.

5. William Shippen, Jr. Born, 1736. Died, 1808. A crafty medical politician. Graduated from the College of New Jersey with the degree of A.B. in 1754. Studied medicine with his father until 1758. He then went to London and studied with the Hunters and McKenzie, specializing in midwifery. From London he went to Edinburgh and took his M.D. there in 1761. After graduation he spent some months in travel. In 1762, he returned to Philadelphia, and in the fall of that year began a course of lectures, with demonstrations, on anatomy and surgery. With the establishment in May, 1765, through the efforts of Dr. John Morgan, of a medical school in connection with the College of Philadelphia, Dr. Shippen was elected professor of anatomy and surgery. Shippen also began in January, 1765, his lectures on midwifery. His anouncement of the lectures in the January 1, 1765, issue of the *Pennsylvania Gazette,* reads much like a modern medical advertisement. When the charter of the College of Philadelphia was revoked in 1779, Shippen was the only member of the faculty to accept a position in the new institution, the University of the State of Pennsylvania. The relation of Shippen to the trouble Morgan had as medical director of the Army, has been discussed in the preceding note. In 1780, Shippen was court-martialed for financial dishonesty. He was acquitted and, contrary to Morgan, was continued in his position. Possibly Rush had some influence, for at this time he was treasurer of the United States Mint.

6. Hermann Boerhaave. Born, 1668. Died, 1738. The most famous physician of the eighteenth cen-

tury. So great was his reputation that a letter from a Chinese correspondent addressed to "Boerhaave in Europe" reached him at Leyden in due time. "One of Boerhaave's chief services to medicine was his emphasis of its positive or scientific side, in contrast to the abstract philosophic theories which so abounded in the eighteenth century" (Withington). Some interesting facts in connection with Boerhaave are given by E. C. Van Leersum in "A General View of the Netherlands," Number XVI, Science.

7. The Tonquin remedy consisted of a mixture of cinnabar and musk.

8. Paracelsus. Born, 1493. Died, 1541. He graduated in medicine at Ferrara in 1515. He is an outstanding character in medical history. He is generally represented as being a rough, drunken character, and as dying from an injury received in a drunken brawl. As a matter of fact he was not a drinking man and he died a quiet natural death in his own bed. Descendants on his mother's side are prominent surgeons in this country.

9. Phryesen. A physician in Colmar and Metz. Died about 1532. His "Spiegl der Artzny" is the first treatise on pathology in the German language.

10. John Coakley Lettsom. Born, 1744. Died, 1815. One of the original founders of the Medical Society of London. He was noted for his philanthropy. A voluminous writer on medical and other subjects. He used to say of himself:

> When patients come to me
> I physics, bleeds and sweats 'em.
> If after this they choose to die,
> What's that to me—I lets 'em. (I Lettsom).

Numerous variations of this doggerel can be found. See Pettigrew, T. J. Memoirs of the Life and Writings of the Late John Coakley Lettsom, Lond., 1817.

11. Benjamin Rush. "The Hippocrates of Pennsylvania." "The American Sydenham." Born, 1745. Died, 1813. Received his B.A. from the College of New Jersey in 1760. He was then apprenticed to Dr. John Redman of Philadelphia, for six years. In 1766 he entered the medical school at Edinburgh and took his M.D. there in 1768. His famous "ten and ten" powder "Dr. Kuhn called a murderous dose! Dr. Hodge called it a dose for a horse! And Barton called it a devil of a dose." See Gross, S.D. Lives of Eminent American Physicians and Surgeons of the Nineteenth Century, Phila., 1861, and Francis R. Packard's sketch in Kelly and Burrage: American Medical Biographies, Balt., 1920.

12. Richard M. Mead. Born, 1673. Died, 1754. Studied in Leyden under Pitcairn, then in Padua where he received in 1696 the degree of Doctor of Medicine and Philosophy. After spending a short time in Naples and Rome, he settled in London and eventually built up a very lucrative practice. He was a very prolific writer; his "Monita et Praecepta Medica" is his best known publication. He was the second physician to carry the celebrated "Gold-Headed Cane."

13. Thomas Percival. Born, 1740. Died, 1804. Practiced medicine at Warrington, England. Best known by his "Medical Ethics," the basis of present codes.

14. Giovanni Battista Morgagni. Born, 1682. Died, 1771. A pupil of Valsalva and later professor at Padua. His chief work, "De Sedibus et Causis Morborum," published when he was seventy-nine years old, is one of the medical classics and is the foundation of modern pathological anatomy. A very pleasing story connected with Dr. John Morgan's visit to him is discussed by Dr. George Dock: The Alleged Dedication of Morgagni Recognizing Kinship to John Morgan. *Med. Libr. & Hist. J.*, IV, 41, March, 1906.

15. John Brown. Born, 1735. Died, 1788. At first a favorite pupil of Cullen; later his bitter opponent. The working of the Brunonian system is best illustrated by the following illustration given by Brown himself, and, according to his biographers, frequently exemplified by him.

> A man slightly below par, or with a tendency to direct debility, drinks five glasses of wine. This, by taking off the excess of excitability, and adding to the stimulus, brings him to the normal state of health. He then drinks five more glasses, and his original state is now reversed, the stimulus being in excess and the excitability deficient. But, says the jovial Brown, we are not so flimsily made as not to stand a little excess, and the man is still in perfect health, though with a tendency to sthenic disease, which is increased on his taking five further glasses. Finally, should he drink twenty (!) glasses of wine the excitability becomes exhausted, the excitement sinks with it, and the man falls into a comatose state from indirect debility. He remains thus for some hours, and, the stimulus being reduced to its lowest point, excitability rapidly reaccumulates, so that on awaking he finds himself in the opposite condition of direct debility, with headache, shaky hands, etc., symptoms which may be readily removed by taking a slight stimulus to get rid of the excess of excitability (Withington).

For an extended account of the various systems of medicine advanced in the eighteenth century, see Baas, J. H. Outlines of the History of Medicine and the Medical Profession, 1889, translated and edited by H. E. Handerson, New York, 1910; also Allbutt, Sir Clifford. Medicine in 1800. *Brit. Med. J.*, Lond., II, 1,850, December 29, 1900.

16. John Haygarth. Date of birth and death uncertain. Practiced medicine at Bath, England. Best known for his *exposè* of Perkins' "Metallic Tractors."

17. The Omeskirk remedy consisted of Bole ammoniac, alum, chalk, elecampane, and black pepper.

18. John Fothergill. Born, 1712. Died, 1780. A London physician, a Quaker, and a philanthropist.

A friend of the American colonies before, during, and after the Revolutionary War. He contributed valuable anatomical charts and casts to the Pennsylvania Hospital; books to its library; obtained and personally contributed funds for the maintenance of the Hospital, and, no doubt, materially assisted Dr. John Morgan through his friendship with the Proprietary, Thomas Penn, in founding the first medical school in this country. The best account of his life is to be found in Fox, R. Hingston. Dr. John Fothergill and His Friends, London, 1919.

19. Rush's original opinion of Mease's thesis on hydrophobia as expressed in a letter to Dr. Lettsom, London, under date of May 28, 1792.

> I inclose you an Essay on the disease produced by the bite of a mad animal, by an ingenious gentleman of this city. It was published as an Inaugural Dissertation a few weeks ago. To accommodate it to the meridian of London, I have, with the consent of the author, changed its title, and called it an Essay.
>
> I now transmit it to you, to be republished, if you think proper, in London. The performance has great merit; and promises to lead to something more rational and successful upon the subject of that terrible disease, than anything that has yet appeared on that subject.—You may safely inform the public that the author is a young man of uncommon talents, and bids fair to do equal honour to medicine and to his country.

20. Nathaniel Chapman. Born, 1780. Died, 1853. He received his M.D. from the University of Pennsylvania in 1801. He made a national reputation as a teacher of the theory and practice of medicine during his incumbency of that chair at the University of Pennsylvania. For an interesting episode in his early life see the article on "Granville Sharp Pattison," *Johns Hopkins Hosp. Bull.*, Vol. XXX, 1919.

21. Noah Webster. Born, 1758. Died, 1843. Best known by his Spelling Book and Dictionary. For an account of him as a writer on epidemics, see Warthin "Noah Webster as Epidemiologist," *Bull. Soc. Med. Hist. Chicago*, Vol. III, No. ii, 1923.

22. Lyman Spalding. Born, 1775. Died, 1821. Studied medicine with Nathan Smith, and assisted him in founding the medical school at Dartmouth, N. H. Professor of anatomy, and, later, president of the College of Physicians and Surgeons of the Western District of New York, at Fairfield, N. Y. Originator of "The Pharmacopoeia of the United States of America." See Spalding, James A. Life of Dr. Lyman Spalding, Originator of the U. S. Pharmacopoeia, Boston, 1917, and Hurd, Henry M. A Sketch of Dr. Lyman Spalding, *Johns Hopkins Hosp. Bull.*, XXX, CCCXXXIX, 125, Balt., 1919.

23. James Thacher. Born, 1754. Died, 1844. He studied medicine with Dr. Abner Hersey. When the outbreak of the Revolutionary War came he took the examination for surgeon's mate, and, having passed with honor, he served at first with Dr. John Warren; later he was promoted to surgeon and was present at many of the important events of the War, the execution of Major André and the surrender of Cornwallis at Yorktown. Dr. Thacher was a voluminous writer on medical and other subjects. His "American Medical Biography," in two volumes was his *magnum opus*. Equally interesting, though less widely known, is his "Medical Journal," covering day by day, for eight years, the events of the war as they transpired.

24. John Foulke. Born, 1757. Died, 1796. Received his M.D. in 1780 from the College of Philadelphia. Lectured on anatomy, in his own Anatomical Hall, 1784–1796. He served on the medical staff of the Pennsylvania Hospital, 1784–1794. He was a member of the American Philosophical Society and was a Fellow of the College of Physicians.

25. Hugh Hodge. Born, 1755. Died, 1798. He received his A.M. from the College of New Jersey, in 1773. He served as surgeon's mate in the Revolutionary War. He was a member of the American Philosophical Society, and also Fellow of the College of Physicians. Dr. Hodge did not approve of Rush's method of treating yellow fever and the criticism he made (see Note 11) evidently greatly displeased Rush, for I find the following letter from Rush to Hodge in the Ridgway Library collection of his correspondence.

> Dear Sir,
>
> I regret that you and I differ so much in our opinions and practice in the prevailing Epidemic, that it is impossible for us to consult together in any case whatever, hereafter, with Safety to a patient.
>
> From Dear Sir, your
friend, &c.
Benj$^{\text{n}}$ Rush.
>
> Octob$^{\text{r}}$ 3rd, 1793
To Dr. Hodge.

26. Matthew Carey. Born, 1760. Died, 1839. Carey was not a medical man; he was a Philadelphia book publisher. He was born in Dublin, Ireland, and in 1783 emigrated to this country. In 1820, he "conceived the idea of establishing a medical periodical of broad scope; he secured the willing services of Chapman as editor, and the enterprise was launched under the title the *Philadelphia Journal of the Medical and Physical Sciences.*" (Mumford). In 1827, this became the *American Journal of the Medical Sciences*. The account by Carey of the yellow fever epidemic of 1793, next to that by Rush, is the most reliable one we possess.

27. S. Wier Mitchell. Born, 1829. Died, 1914. He received his M.D. from the Jefferson Medical College in 1850. His reputation was international, and was due to his original contributions to medicine and physiology. His novels and poetry easily made him the leading litterateur in medicine.

28. Mease's two attacks of yellow fever. In the account of the 1793 epidemic, Rush says: "Cases of reinfection were very common during the prevalence of this fever. They occurred most frequently where the first attack had been light. But they succeeded attacks that were severe in Dr. Griffitts, Dr. Mease, my pupil Mr. Coxe, and several others." In his discussion of bloodletting in the same epidemic Rush says: "The presence of petechiae did not deter me from repeating blood-letting, where the pulse retained its fullness or tension. I prescribed it with success in the cases of Dr. Mease, and of Mrs. Gebler, in Dock-street, in each of whom petechiae had appeared." Now comes what seems to me to be a significant observation. "Bleeding was equally effectual in the case of the Rev. Mr. Keating, at a time when his arms were spotted with that species of eruptions which I have compared to moscheto-bites." (*sic*).

In his account of the 1798 epidemic, Rush says: "The pulse was less active in this fever than in the fevers of former years. It was seldom, however, so feeble as to forbid bleeding. In Dr. Mease it called for the loss of 162 ounces of blood." The question at once arises; did Mease have three attacks? two in 1793, and one in 1798? Outside of the account by Rush I can find no evidence that he did. This being the case, when did Mease lose 162 ounces of blood?

29. Thomas Mifflin. Born, 1744. Died, 1800. Served with distinction in the Revolutionary Army, rising to the grade of major-general. He was president of Congress in 1783. A member of the convention of 1787, which formed the United States Constitution. Governor of Pennsylvania, 1791–1800.

30. William Currie. Born, 1754. Died, 1828. He attended the College of Philadelphia, but did not receive either an M.B., or an M.D. Although his father was a Tory, he entered the American Army as a surgeon. Currie was one of the historians of the yellow fever epidemic in Philadelphia. He strongly opposed Rush and this, no doubt, occasioned Rush to write Noah Webster in 1798, "I wish you would address your letters to the College, instead of Dr. Currie. The latter is thought a weak man by his friends, and *something worse* by his enemies. His name will hurt the circulation of your book in Philadelphia." (Warthin.) Ruschenberger, however, says: "He was highly esteemed by contemporary physicians." Currie was a member of the Board of Health of Philadelphia, American Philosophical Society and physician to the Magdalen Asylum.

31. Philip Syng Physick. Born, 1768. Died, 1837. "Father of American Surgery." He received his medical degree at Edinburgh in 1792. Physick was an ardent supporter of Rush and his method of treating yellow fever in the epidemic of 1793. He suffered a severe attack of the disease and came under the care of Dr. Dewees who, as Physick announces in a letter published in the *Daily Advertiser* for September 14, 1793, bled him 176 ounces in twenty-two bleedings. Physick's record during the epidemic is not an enviable one, for he refused to serve with Dr. Devèze in caring for the patients at the Bush Hill Hospital, because Dr. Devèze was a Frenchman. Physick was professor of surgery at the University of Pennsylvania, 1805–19; professor of anatomy, 1819–31; Emeritus Professor, 1831–37. His most noted operation, and one of his last, was a lithotomy performed upon Chief Justice Marshall, in which nearly a thousand calculi were removed.

32. Samuel Cooper. Born, ? . Died, 1798. Cooper was one of the early medical apprentices and resident physicians who served the Pennsylvania Hospital. His indentures were executed January 1, 1792, and his term of service expired in August, 1797. The apprentices were students of medicine when indentured to the hospital, and usually graduated before leaving it. A vote of thanks was given him "for his services especially for his care of patients during the yellow fever." Dr. Cooper was the first physician to die during the 1798 epidemic. He bequeathed his entire estate to the Pennsylvania Hospital.

33. In 1797 "moschetoes were more numerous during the prevalence of the fever than in 1793." (Rush.)

34. John Redman Coxe. Born, 1773. Died, 1864. His early education was acquired under his grandfather, Dr. John Redman. When ten years of age he went to England and completed his classical education at Edinburgh. He also attended one course of medical lectures there. In 1790, he returned to Philadelphia, studied medicine with Rush, "and fought the plague side by side" with him. He received his M.D. from the University of Pennsylvania in 1794. The next two years he spent in European travel and study, returning to Philadelphia in 1796. He served as one of the resident physicians at Bush Hill Hospital during the 1797 epidemic of yellow fever. He was professor of chemistry at the University of Pennsylvania from 1809–1818, and professor of materia medica and pharmacy from 1818–1835.

35. William Cobbett. Born, 1762. Died, 1835. A writer on politics and economics. In 1792, he married and emigrated to the United States. He settled in Philadelphia where he edited a Federalist paper called *Peter Porcupine's Gazette*. He was forced to return to England and in 1802, he began to issue *Cobbett's Weekly Political Register*. In 1820, he was prosecuted by the British Government and fined £1,000 and imprisoned for two years. During the years 1817–19, he resided on a farm on Long Island to escape prosecution. The remainder of his life was

spent in England. Cobbett is a most interesting character and the following titles will furnish all the information we have in regard to him. Clarke, J. F. Autobiographical Recollections of the Medical Profession, London, 1874. Smith, Edward. William Cobbett, 2 vols., London, 1879. Sprigge, Sir Squire. The Centenary of the Lancet, *Lancet*, Lond., Oct. 6, 1923.

36. Joseph Bloomfield. Born, ? . Died, 1823. Studied law; served through the Revolutionary War; became attorney-general of New Jersey; governor of New Jersey, 1801–12; brigadier-general in the war with Great Britain, 1812–15. Member of Congress, 1817–21.

37. Stephen Girard. Born near Bordeaux, France, 1750. Died in Philadelphia, 1831. Before the Revolutionary War he was in the West Indian trade. During the Revolution a grocer and liquor dealer in and near Philadelphia. He made much money by receiving valuables from the Haitian planters during the insurrection of 1791–1804, a large proportion of which was never called for, and by leasing property in Philadelphia at a low rate when business was dull, and then letting it at high rates when business was active. For years he was considered the wealthiest man in the United States. During the yellow fever epidemics in Philadelphia he contributed freely in time, personal care and money for the relief of the sick. In all accounts of the 1793 epidemic his was the master mind which brought order out of the confusion that existed at the Bush Hill Hospital. He was the founder of Girard College.

38. It is interesting to note that it was largely due to the activities of "that belligerent Celt, Charles Caldwell," aided by the exertions of Drs. Rush and Physick, that water from the Schuylkill was introduced into Philadelphia. Immediately after the 1793 epidemic of yellow fever, Caldwell began publishing articles in the public press urging that this be done as a preventive against future epidemics.

39. James Hutchinson. Born, 1752. Died, 1793. He received his A.B. and probably his M.D. from the College of Philadelphia. As no graduating exercises were held in 1774, it is quite probable that he secured certificates from his instructors. He was a trustee, and professor of materia medica in the University of the State of Pennsylvania, in 1779; professor of chemistry in the University of Pennsylvania, 1791; physician of the port and one of the physicians at the Pennsylvania Hospital; first secretary of the College of Physicians. Dr. Hutchinson was an early victim of the epidemic of yellow fever. At first he was under the care of Dr. Kuhn until he himself became ill. Dr. Currie then took charge, and Dr. Barton was called in consultation by Currie. "Dr. Rush also called and volunteered suggestions as to treatment. It is scarcely necessary to say that he recommended free purgation, notwithstanding the fact that he had had 'near thirty stools in three days.'"

40. John Pennington. Born, ? . Died 1793. He received his M.B. from the University of the State of Pennsylvania(?) in 1790. He was one of the ten physicians to whom the yellow fever proved fatal in 1793.

41. Thomas Joseph Pettigrew. Born, 1791. Died, 1865. His early education was somewhat superficial. When but a lad twelve years old he manifested a love for anatomy and soon became familiar with the bones, ligaments and muscles of the human body. When seventeen years old he was a demonstrator in the private school of Mr. Taunton. He became a Fellow of the Medical Society of London; Fellow of the Royal College of Surgeons, and a member of numerous other societies. He was a writer on a variety of subjects other than medical. In his later years he became much interested in Egyptian mummies and wrote extensively on the subject. See his "Superstitions Connected with the History and Practice of Medicine and Surgery" (Philadelphia, 1844); "Memoirs of the Life and Writings of the Late John Coakley Lettsom" (London, 1817) and "Medical Portrait Gallery," in four volumes (London, 1840).

42. John Syng Dorsey. Born, 1783. Died, 1818. He received his M.D., when only nineteen years old, from the University of Pennsylvania. He was appointed one of the resident physicians at the City Hospital and served through the epidemic of 1802–03. In the fall of 1803 he sailed for Europe and divided his time between London and Paris, returning to Philadelphia late in 1804. In 1807, when twenty-four years old, he was appointed adjunct-professor of surgery in the University of Pennsylvania. In 1813 he published his "Elements of Surgery" and the same year was appointed professor of materia medica. In 1818, he was appointed professor of anatomy. He delivered his opening lecture November 2, 1818, and on the evening of the same day developed a severe attack of typhus, which terminated fatally eleven days later.

43. William Potts Dewees. Born, 1768. Died, 1841. In the various sketches of his life to which I have had access, the statement is made that he received an M.B. degree from the University of Pennsylvania when only twenty-one years old. This would be in 1789; but at that time the University of Pennsylvania did not exist. It must, therefore, have been either from the University of the State of Pennsylvania or from the College of Philadelphia that he received his M.B. Be this as it may, he received his M.D. from the University of Pennsylvania in 1806. In 1810, midwifery was made a separate department. Previous to that date it had been joined with anatomy. Dr. Thomas C. James was chosen

as the professor in charge. For the next three years it was practically an empty chair, for it was not "necessary in order to obtain the Degree of Doctor of Medicine, that the student shall attend the Professor of Midwifery." In 1813 attendance became compulsory. In 1824 the duties of the chair became so burdensome that Dr. James requested an assistant and in 1825 Dr. Dewees was elected adjunct-professor. In 1834 Dr. James resigned and Dr. Dewees was elected to the professorship. He held the position for one year; at the end of that time he was obliged to resign on account of illness. His "System of Midwifery"; "A Treatise on the Medical and Physical Treatment of Children" and "Diseases of Females" were popular books and passed through many editions.

44. Daniel Drake. Born, 1785. Died, 1852. He studied medicine with Dr. William Goforth of Cincinnati, from whom he received an autograph diploma signed as "Surgeon-general, First Division, Ohio Militia." This was the first medical diploma issued in the West. In 1805 he attended the lectures at the University of Pennsylvania and the following spring returned to Cincinnati. In 1815 he attended a second course of lectures at the University of Pennsylvania and received his M.D. in 1816. From this time until his death he was occupied either organizing medical schools or filling some professorship. His life in this respect was a stormy one. The best account is to be found in Juettner, O. Daniel Drake and His Followers, Cincinnati, 1909. Dr. Drake was a voluminous writer. His "Picture of Cincinnati" is a classic. His chief work and the one on which his reputation as a medical writer is founded, is "The Diseases of the Interior Valley of North America." He spent nearly thirty years in its preparation. The first volume was published in 1850; the second volume was published in 1854, two years after his death.

45. In the sketch of the Philadelphia College of Pharmacy, by George M. Beringer, published in the "Founder's Week Memorial Volume," Philadelphia, 1909, he says that the institution by the University of Pennsylvania in 1821, of the course leading to the degree of Master of Pharmacy, led to considerable discussion among the druggists, and that they objected to their "boys" being taken from them and made "M.P's." Said Henry Troth to Peter Lehman: "Why can't we have an institution of our own, train our apprentices and ourselves supervise the qualifications of those seeking admission to our rank?" The suggestion led to action, and the leading College of Pharmacy in this country was established.

46. John Jones. Born, 1729. Died, 1791. Whatever is known of Dr. Jones is based on the sketch written by James Mease. Dr. Jones began the study of medicine, when eighteen years old, with Dr. Thomas Cadwalader of Philadelphia. After completing his study with him, Dr. Jones went to London and attended the lectures of William Hunter, Percival Pott and M'Kenzie. From London he went to France and took his medical degree at the University of Rheims. He then went to Paris and attended the lectures of Petit, Le Cat and Le Dran. Later he spent some time at Leyden and at Edinburgh. On his return to this country he settled in New York. During the French and Indian War Dr. Jones served as army surgeon, and at its close returned to his private practice in New York. In 1768, the medical department of King's College was organized and Dr. Jones was appointed professor of surgery. Ill health compelled him after a few years of successful practice to again visit Europe, where the thick smoke and impure atmosphere of London relieved his asthma, and he returned to this country much improved in health. In 1775, he published his "Plain Remarks Upon Wounds and Fractures." This was the first work on surgery to be published in this country. It was republished at Philadelphia in 1795, with the memoir by James Mease already mentioned. In 1780, Dr. Jones removed from New York to Philadelphia and the same year he was appointed one of the physicians of the Pennsylvania Hospital, a position he held during the remaining years of his life.

47. Major Pierce Butler. Born, 1745. Died, 1822. Member of the Constitutional Convention of 1787. Senator of the United States from South Carolina. While in Congress he became attached to Philadelphia, its environments and its people. His estate, "Butler Place," was situated on the Old York Road near Branchtown.

48. George Cadwalader. Born, 1804. Died, 1879. Educated for the law. Brigadier-general in the Mexican War; breveted major-general for services at Chapultepec. Major-general of Pennsylvania troops 1861–62, and in 1862, major-general of United States volunteers.

49. Frances Ann Kemble. Better known as Fanny Kemble. Born, 1809. Died, 1893. Although she had the family talent for the stage, she did not care to follow it as a profession. She came to this country with her father in 1832, and appeared frequently on the stage. In 1834 she married Pierce (Mease) Butler who had inherited, under the terms of his grandfather's (Major Pierce Butler) will, an extensive plantation on the islands of the Altamaha river, Georgia. She was strongly opposed to slavery; this eventually led to so much unhappiness that the divorce of 1848 was forthcoming. Her "Journal of a Residence in America," London, 1835, and her "Residence on a Georgia Plantation," New York, 1863, are interesting reading. It is said that the latter publication was withheld during the Civil War

through a fear that it would become a powerful document for the Abolitionists. After her divorce she resumed her maiden name but did not return to the stage. Much of the latter part of her life was spent in England, after 1877 she resided there continuously. Her daughter, Sarah, married Owen Jones Wister and their son, Owen Wister, is the well-known author.

50. The supposition by Captain Pleadwell, in a footnote to his interesting sketch of Edward Cutbush (ANNALS OF MEDICAL HISTORY, v, iv, 337) that the Mrs. Mease referred to was the wife of Dr. James Mease can hardly be correct. Dr. Mease was married July 3, 1800, and he could not be described as an "old man," nor Mrs. Mease as gouty and peevish. The wife of John Mease, mother of Dr. James Mease, died before 1798, and the letter which refers to a Mrs. Mease bears the date of 1801. There were several families by the name of Mease in Philadelphia at the time the letter was written and one of them had at its head a James Mease, but not Dr. James Mease.

51. Among the letters on file in the Ridgway Library, Philadelphia, I find the following, evidently written in an attempt to have Rush withdraw his resignation from the College of Physicians:

> My dear friend—
>
> I have been waiting with some impatience for either the kind note I have just received—or what would have been better still—a Visit—but I was wrong to expect the last in such weather. It is however, a sweet Consolation to me to hear of my friend's recovery.
>
> My own lot is confinement to my Chamber with Rheumatism which has been, what I call severe—but I hope is giving way.
>
> I have nothing now but friendly good wishes to send but when we meet expect I shall have something a little more to communicate—especially if I continue to feel as much mortified and distressed as I did this morning to hear of the *Resignation business*—Oh, my friend, search and see if our Resentments are to make us quit places where we can be eminently useful—I remain with sincere affection, tho' without being afraid of acting the friend.
>
> S. P. Griffitts.
>
> Novr. 6
>
> All well, and desire good wishes.

Dr. Griffitts was at this time professor of materia medica at the University of Pennsylvania.

52. The following letter from Mrs. Meredith is self-explanatory. It shows the strain under which the people and physicians labored during the epidemic of 1793. "For God's sake dear Mr. Clymer procure some help for Mr. Meredith or he will die. I sent to Dr. Rush this morning but he neither comes nor sends. I shall go distracted if somebody does not come."

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James Mease

DOCTOR SMOLLETT*

By CECIL K. DRINKER, M.D.

BOSTON, MASS.

MATERIAL of medical interest is abundant throughout the novels of Tobias Smollett, and deals with both land and naval experiences. Smollett's life as a naval surgeon brought him success in the delineation of such worthies as Commodore Trunnion, Tom Bowling and Captain Oakum, and it was through these sailors that sea-faring characters first got their grip on the reading public. Naturally enough the characterization of these eighteenth-century seamen resulted in picturing something of their background, and it is interesting to note how far historians who have attempted to record the actualities of naval life have been forced to quote Smollett.

The selections which follow are designed to bring the reader into touch with medicine in the late eighteenth century. If the picture presented is a harsh one it may be remembered that Smollett was never a successful physician, and that he had a singular aptitude for dwelling upon the unpleasant.

Tobias George Smollett was born in the valley of the Leven in Scotland in 1721, and died near Pisa in 1771. His works are a sufficient evidence that he was a well-educated man. As a boy he frequently broke out in verse and this habit, which he did not lose in later life, can scarcely be considered fortunate. Whatever may be said as to the merits of Smollett's prose, his poetry and the play that he eventually managed to see produced are of a dull artificiality which cannot be borne.

He attended the University in Glasgow, and while there decided to enter medicine and was apprenticed to John Gordon, an agreeable and successful surgeon, of whom he remarks in the character of Bramble in "The Expedition of Humphrey Clinker":[1] "I was introduced to Dr. Gordon, a patriot of a truly noble spirit, who is the father of the Linen Manufactury in that place and was a great promoter of the city workhouse infirmary and other works of public utility. Had he lived in ancient Rome he would have been honoured with a statue at the public expense." Smollett's apprenticeship was finished in 1739, when he was eighteen, and he set out for London with the double intention of selling a tragedy he had written and of entering the medical service of the army or navy. For the next nine years he lived by medicine, first in the navy and then by private practice. In 1748, "The Adventures of Roderick Random" was published and Smollett at once became a distinguished literary figure. Although after this time he attempted further medical practice, writing and editing rapidly became his chief work.

There is little direct information about the man. He seems to have been an entertaining and extravagant person whose ready partisanship and hot temper led him into trouble more than once. These latter qualities grew upon him as he advanced in years and, coupled with severe and very persistent asthmatic attacks, made him bitter and isolated, and earned for him the well-known reference of Laurence Sterne:

> The learned Smelfungus travelled from Boulogne to Paris—from Paris to Rome—and so on; but he set out with the spleen and jaundice, and every object he passed by was discoloured and distorted . . . He wrote an account of them but it was nothing but an account of his miserable feelings . . . I met Smelfungus in the grand portico of the Pantheon—he was just coming out of it—"It is nothing but a huge cockpit," said he. "I wish you had said nothing worse of the Venus Medicis," replied I; for in passing through Florence, I had heard he had fallen foul upon the goddess, and used her worse than a common

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> strumpet, without the least provocation in nature . . . I popped upon Smelfungus again at Turin, in his return home, and a sad tale of sorrowful adventures he had to tell; wherein he spoke of moving accidents by flood and field, and of the cannibals which each other eat; the anthropophagi . . . He had been flayed alive and bedeviled, and worse than St. Bartholomew, at every stage he had come at. "I'll tell it," said Smelfungus, "to the world." "You had better tell it," said I, "to your physician."

FIG. 1. TOBIAS SMOLLETT, M.D.

Smollett's accounts of contemporary medicine divide themselves quite readily into four parts: first, and rather scanty, are references to the general character of medical apprentices and the lives they lived. The medical student of fiction is, so far as I have been able to locate him, an individual of conspicuous audacity, and in Roderick Random as an apprentice in medicine we have no exception. The first medical experiences of Roderick were in the service of an individual named Potion, whom he is forced to leave because of financial difficulties. The following is an account of his reception into a second medical service[2]:

> My despair had rendered me almost quite stupefied, when I was one day told that a gentleman desired to see me at a certain public-house, whither immediately I repaired, and was introduced to one Mr. Launcelot Crab, a surgeon in town, who was engaged with two more in drinking a liquor called pop-in, composed by mixing a quartern of brandy with a quart of small beer. Before I relate the occasion of this message, I believe it will not be disagreeable to the reader if I describe the gentleman who sent for me and mention some circumstances of his character and conduct, which may illustrate what follows, and account for his behaviour to me.
>
> This member of the faculty was aged fifty, about five feet high, and ten round the belly; his face was capacious as a full moon, and much of the complexion of a mulberry; his nose, resembling a powder-horn, was swelled to an enormous size, and studded all over with carbuncles; and his little gray eyes reflected the rays in such an oblique manner, that, while he looked a person full in the face, one would have imagined he was admiring the buckle of his shoe. He had long entertained an implacable resentment against Potion, who, though a young practitioner, was better employed than he, and once had the assurance to perform a cure whereby he disappointed and disgraced the prognostic of the said Crab. This quarrel, which was at one time upon the point of being made up by the interposition and intermediation of friends, had been lately inflamed beyond a possibility of reconciliation by the respective wives of the opponents, who, chancing to meet at a christening, disagreed about precedence, proceeded from invectives to blows, and were, with great difficulty, by the gossips, prevented from converting the occasion of joy into a scene of lamentation.
>
> The difference between these rivals was in the height of rancour, when I received the message of Crab, who received me as civilly as I could expect from one of his disposition; and after desiring me to sit, inquired into the particulars of my leaving the house of Potion; which when I had related, he said with a malicious grin, "There's a sneaking dog!—I always thought him a fellow without a soul, damn me!—a canting scoundrel, who has crept into his business by his hypocrisy, and kissing the asse of everybody." "Aye, aye," says another, "one might see with half an eye that the rascal has no honesty in him, by his going so regularly to church." This sentence was confirmed by a

third, who assured his companions, that Potion was never known to be diguised in liquor but once, at a meeting of the godly, where he had distinguished himself in an extempore prayer an hour long. After this preamble, Crab addressed himself to me in these words: "Well, my lad, I have heard a good character of you, and I'll do for you. You may send your things to my house when you please. I have given orders for your reception. Zounds! what does the booby stare at?—If you have no mind to embrace my courteous offer, you may let it alone and be damned." I answered with a submissive bow, that I was far from rejecting his friendly offer, which I would immediately accept as soon as he should inform me on what footing I was to be entertained. "What footing! damn my blood," cried he; "d'ye expect to have a footman and a couple of horses for you?" "No, sir," I replied, "my expectations are not quite so sanguine. That I may be as little burdensome as possible, I would willingly serve in your shop, by which means I may save you the expense of a journeyman, or porter at least, for I understand a little pharmacy, having employed some of my leisure hours in the practice of that art while I lived with Mr. Potion; neither am I altogether ignorant of surgery, which I have studied with great pleasure and application." "Oho! you did?" says Crab. "Gentlemen, here is a complete artist!—Studied surgery. what? in books, I suppose. I shall have you disputing with me one of these days on points of my profession. You can already account for muscular motion, I warrant, and explain the mystery of the brain and nerves—ha? You are too learned for me, damn me. But let's hear no more of this stuff. Can you bleed and give a clyster, spread a plaster, and prepare a potion?" Upon my answering in the affirmative, he shook his head, telling me he believed he should have little good of me, for all my promises; but however he would take me in for the sake of charity.

After a brief and stormy period with Crab, in which Roderick gives as many hard knocks as he receives, he goes to London and eventually enters with another surgeon, a Mr. Lavement, whose work is described as follows[3]:

He had a great deal of business: but as he was mostly employed among his fellow refugees, his profits were small. However his expense for medicines was not great, for he was the most expert man at a succedaneum of any apothecary in London; so that I have been sometimes amazed to see him, without the least hesitation, make up a physician's prescription, though he had not in his shop one medicine mentioned in it. Oyster shells he could invent into crabs' eyes; common oil into oil of sweet almonds; syrup of sugar into balsamic syrup; Thames water, into aqua cinnamoni; turpentine into capivi, and a hundred more costly preparations were produced in an instant, from the cheapest and coarsest drugs of the materia medica; and when any common thing was ordered for a patient, he always took care to disguise it in colour or taste, or both, in such a manner that it could not possibly be known. For which purpose cochineal and oil of cloves were of great service. Among many nostrums which he possessed, there was one for the venereal disease, that brought him a good deal of money; and this he concealed so artfully from me that I could never learn its composition. But during the eight months I staid in his service, he was so unfortunate in the use of it, that three parts in four of those who took it, were fain to confirm the cure by a salivation under the direction of another doctor.

The circumstances attending Roderick's removal from both these positions were of an amorous nature not out of keeping with the reputation of the medical students of fiction. These matters Smollett treats with a blatant and disagreeable touch which to a great degree removes their humorous character and contrasts very unfavourably with the lighter hand of Fielding and of his own model, Le Sage. Allied, in a sense, to the medical experiences with Crab and Lavement are certain passages in "The Adventures of Ferdinand, Count Fathom," in which that infamous person to further his entirely unmoral ends becomes a doctor. Smollett through this means gives a picture of an unscrupulous quack but the necessities of the story require the delineation of a character without necessitating any significant account of methods and surroundings.

The second phase of Smollett's medical life is concerned with his experiences in the navy and indeed his chief distinction as an author rests with his naval characters. In the character of Roderick Random he certainly, in some degree, gives his own experiences in entering the navy and on active service. Upon reaching London, Roderick fails to sell his tragedy and uses up his small stock of money on bribes to the wrong persons before he finally reaches the examining board for entrance into the navy. He then has the following experience which possesses such a degree of vividness as to compel us to regard a good part of it as personal experience[4]:

> At that instant a young fellow came out from the place of examination with a pale countenance, his lip quivering and his looks as wild as if he had seen a ghost. He no sooner appeared, than we all flocked about him with the utmost eagerness to know what reception he had met with; which, after some pause, he described, recounting all the questions they had asked with the answers he had made. In this manner we obliged no less than twelve to recapitulate, which, now the danger was past they did with pleasure, before it fell to my lot; at length the beadle called my name, with a voice that made me tremble as much as if it had been the sound of the last trumpet; however, there was no remedy: I was conducted into a large hall, where I saw about a dozen of grim faces sitting about a long table; one of whom bade me come forward, in such an imperious tone that I was actually for a minute or two bereft of my senses. The first question he put was, "Where was you born?" To which I answered, "In Scotland." —"In Scotland," said he; "I know that very well; we have scarce any other countrymen to examine here; you Scotchmen have overspread us of late as the locusts did Egypt: I ask you in what part of Scotland you was born?" I named the place of my nativity, which he had never before heard of; he then proceeded to interrogate me about my age, the town where I served my time, with the term of my apprenticeship; and when I informed him that I had served three years only, he fell into a violent passion; swore it was a shame and a scandal to send such raw boys into the world as surgeons; that it was a great presumption in me, and an affront upon the English to pretend to sufficient skill in my business, having served so short a time, when every apprentice in England was bound seven years at least; that my friends would have done better if they had made me a weaver or a shoemaker, but their pride would have me a gentleman, he supposed, at any rate, and their poverty could not afford the necessary education. This exordium did not at all contribute to the recovery of my spirits, but, on the contrary, reduced me to such a situation that I was scarce able to stand, which being perceived by a plump gentleman who sat opposite to me, with a skull before him, he said, Mr. Snarler was too severe upon the young man; and turning towards me, told me, I need not be afraid, for nobody would do me any harm; then bidding me to take time to recollect myself, he examined me touching the operation of the trepan, and was very well satisfied with my answers. The next person who questioned me was a wag, who began by asking if I had ever seen amputation performed; and I replying in the affirmative, he shook his head, and said, "What! upon a dead subject, I suppose? If," continued he, "during an engagement at sea, a man should be brought to you with his head shot off, how would you behave?" After some hesitation I owned such a case had never come under my observation, neither did I remember to have seen any method of cure proposed for such an accident in any of the systems of surgery I had perused. Whether it was owing to the simplicity of my answer, or the archness of the question, I know not, but every member of the board deigned to smile, except Mr. Snarler, who seemed to have very little of the animal risible in his constitution. The facetious member, encouraged by the success of his last joke, went on thus: "Suppose you was called to a patient of a plethoric habit, who had been bruised by a fall, what would you do?" I answered, I would bleed him immediately. "What," said he, "before you had tied up his arm?" But this stroke of wit not answering his expectation, he desired me to advance to the gentleman who sat next to him; and who, with a pert air, asked what was the method of cure I would follow in wounds of the intestines. I repeated the method of cure as it is described by the best chirurgical writers; which he heard to an end, and then said, with a supercilious smile, "So you think by such treatment the

patient might recover?” I told him I saw nothing to make me think otherwise. “That may be,” resumed he, “I won’t answer for your foresight; but did you ever know a case of this kind to succeed?” I answered I did not; and was about to tell him I had never seen a wounded intestine; but he stopped me by saying with some precipitation, “Nor never will. I affirm, that all wounds of the intestines, whether great or small are mortal.” “Pardon me, brother,” says the fat gentleman, “there is very good authority”—Here he was interrupted by the other with “Sir, excuse me, I despise all authority. Nullius in verba. I stand upon my own bottom.”—“But sir, sir,” replied his antagonist, “the reason of the thing shows”—“A fig for reason,” cried this sufficient member, “I laugh at reason, give me ocular demonstration.”

The examiners now take sides and after what can only be described as a thoroughgoing row Roderick is dismissed passed, without the necessity of answering further questions. Following this experience Roderick is unable to get a ship and eventually when quite destitute is pressed and placed aboard the Thunder man-of-war lying at the Nore and destined to take part in the unfortunate expedition of Sir Edward Vernon against Carthagena. I may mention here that the fleet contained no vessel named the Thunder but that Smollett himself went upon the expedition in one of the largest ships, which one he does not say, nor has it been possible to ascertain.

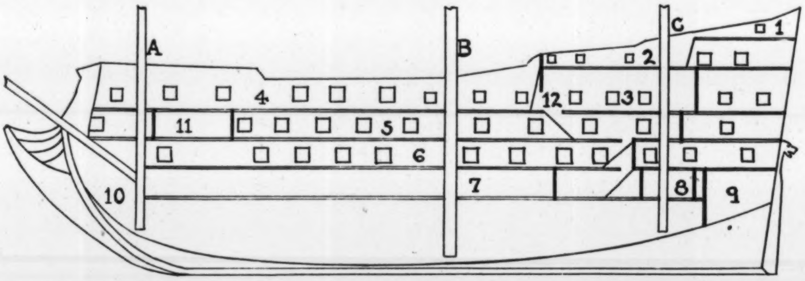


FIG. 2. DIAGRAMMATIC REPRESENTATION OF A FIRST-RATE SHIP OF WAR, LATE EIGHTEENTH CENTURY, RECONSTRUCTED FROM AN ILLUSTRATION IN “SEA LIFE IN NELSON’S TIME” BY JOHN MASEFIELD, AND FROM A LONGITUDINAL SECTION OF A SEVENTY-FOUR-GUN SHIP IN “ELEMENS DE L’ARCHITECTURE NAVALE,” BY M. DUHAMEL DU MONCEAU, PARIS, 1752.

A. Fore mast. B. Main mast. C. Mizzen mast.

1. Poop. 2. Quarter-deck. 3. Half-deck. 4. Spar-deck. 5. Main, second, or upper deck. 6. First or lower gun-deck. 7. Orlop-deck. 8. After-cockpit. 9. After powder-magazine. 10. Forward powder-magazine. 11. Galley. 12. Main-hatchway.

Through an accident Roderick is enabled to become a surgeon’s mate. He describes his entrance into his new life as follows[5]:

When I had obtained this favour, my friend Thomson carried me down to the cockpit, which is the place allotted for the habitation of the surgeon’s mates; and when he had shown me their berth, as he called it, I was filled with astonishment and horror. We descended by divers ladders to a space as dark as a dungeon, which I understood was immersed several feet under water, being immediately above the hold. I had no sooner approached this dismal gulf, than my nose was saluted with an intolerable stench of putrified cheese and rancid butter, that issued from an apartment at the foot of the ladder, resembling a chandler’s shop, where, by the faint glimmering of a candle, I could perceive a man with a pale meagre countenance, sitting behind a kind of desk, having spectacles on his nose and a pen in his hand. This I learned of Mr. Thomson, was the ship’s steward, who sat there to distribute provision to the several messes and to mark what each received. He therefore presented my name to him, and desired I might be entered in his mess; then, taking a light in his hand, conducted me to the place of his residence, which was a square of about six feet, surrounded with the medicine chest, that of the first mate, his own, and a board by way of a table, fastened to the after powder-room; it was also enclosed with canvass to screen us from the cold, as well as from the view of the midshipmen and quarter-masters, who lodged within the cable-tiers on each side of us.

Some idea of where Roderick went may be obtained from the diagram of a first-rate ship shown on page 35. He descended at least three ladders and found himself finally in the small space by the mizzenmast, marked 8. The orlop deck (7) on which the cockpit was found, was ordinarily well below the water line in laden ships. In series forward on this deck, which was poorly lighted by lanterns and candles, were found the purser's storeroom and midshipmen's berth, then the sail room and cable tiers with other tiers for the stowage of spare rigging and hawsers, and finally the fore cockpit and fore powder magazine. In time of battle, or whenever the after cockpit became filled with sick or wounded, the midshipmen and junior lieutenants were simply crowded forward, hanging their hammocks in the cable tiers. The orlop deck was immediately above the hold and was not wholly planked over so that ready access could be secured to the main bulk of the ship's stores.

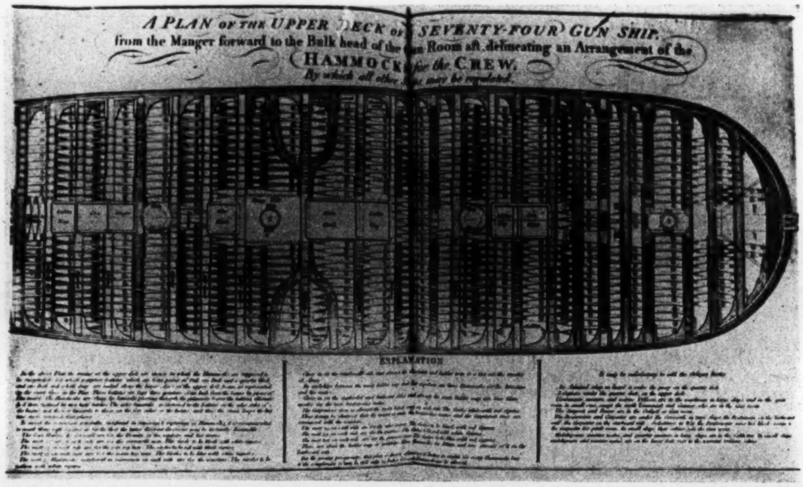

A PLAN OF THE UPPER DECK OF A SEVENTY-FOUR GUN SHIP.
from the Manger forward to the Bulk head of the Gun Room aft, delineating an Arrangement of the
HAMMOCKS for the CREW,
By which all other may be regulated.
EXPLANATION

Fig. 3. The Method of Slinging Hammocks on the Upper Deck of a Seventy-four-gun Ship. Fourteen Inches for a Man was the Usual Allotment of Space. Taken from "The Elements and Practice of Rigging and Seamanship," by David Steel, 1794, ii, 428.

Roderick's actual introduction to his medical duties was as follows[6]:

> After dinner, Thomson led me round the ship, showed me the different parts, described their uses, and, as far as he could, made me acquainted with the particulars of the discipline and economy practised on board. He then demanded of the boatswain an hammock for me, which was slung in a very neat manner by my friend Jack Rattlin; and as I had no bed-clothes, procured credit for me with the purser, for a mattress and two blankets. At seven o'clock in the evening, Morgan visited the sick, and having ordered what was proper for each, I assisted Thomson in making up his prescriptions; but when I followed him with the medicines into the sick berth or hospital, and observed the situations of the patients, I was much less surprised that people should die on board, than that any sick person should recover. Here I saw about fifty miserable distempered wretches, suspended in rows, so huddled one upon another, that not more than fourteen inches space was allotted for each with his bed and bedding; and deprived of the light of the day, as well as of fresh air; breathing nothing but a noisome atmosphere of the morbid steams exhaling from their own excrements and diseased bodies, devoured with vermin hatched in the filth that surrounded them, and destitute of every convenience necessary for people in that helpless condition . . . I could not comprehend how it was possible for the attendants to come near those

> who hung on the inside towards the sides of the ship, in order to assist them, as they seemed barricaded by those who lay on the outside, and entirely out of the reach of all visitation. Much less could I conceive how my friend Thomson would be able to administer clysters, that were ordered for some in that situation; when I saw him thrust his wig in his pocket, and strip himself to his waistcoat in a moment, then creep on all four under the hammocks of the sick, and, forcing up his bare pate between two, keep them asunder with one shoulder, until he had done his duty. Eager to learn the service, I desired he would give me leave to perform the next operation of that kind; and he consenting, I undressed myself after his example, and crawling along, the ship happened to roll; this motion alarming me, I laid hold of the first thing that came within my grasp, with such violence, that I overturned it, and soon found by the smell that issued upon me, I had not unlocked a box of the most delicious perfume: it was well for me that my nose was none of the most delicate, else I know not how I might have been affected by this vapour, which diffused itself all over the ship, to the utter discomposure of every body who tarried on the same deck: neither was the consequence of this disgrace confined to my sense of smelling only; for I felt my misfortunes more ways than one. That I might not, however, appear altogether disconcerted in this my first essay, I got up, and pushing my head with great force between two hammocks, towards the middle, where the greatest resistance was, I made an opening indeed, but, not understanding the knack of dexterously turning my shoulder to maintain my advantage, had the mortification to find myself stuck up as it were in a pillory, and the weight of three or four people bearing on each side of my neck, so that I was in danger of strangulation. While I remained in this defenceless posture, one of the sick men, rendered peevish by his distemper, was so enraged at the smell I had occasioned, and the rude shock he had received from me in my elevation, that, with many bitter reproaches, he seized me by the nose, which he tweaked so unmercifully, that I roared with anguish. Thomson, perceiving my condition, ordered one of the waiters to my assistance, who with much difficulty disengaged me from this situation, and hindered me from taking vengeance of the sick man, whose indisposition would not have screened him from the effects of my indignation.

The illustration of the method of slinging hammocks on the upper deck gives an excellent idea of the situation which Roderick and his friend had to meet.

The third phase of Smollett's medical life began in 1746. The West Indian and naval experiences being over, he returned to London and attempted unsuccessfully to practice surgery. He made a number of medical friends, among whom were the two Hunters, but neither here nor in Bath where he soon began to live was he even reasonably successful as a practitioner. Apparently at the instance of his wife Smollett obtained his medical degree at Aberdeen in 1749, but all his medical efforts were fruitless and it was certainly fortunate that he was able to turn to literature, though his success in this field did not bring him much happiness. Anderson,[7] one of his biographers, gives the following reason for his ill success in practice and the statement grows more forcible, if you wish, through a practical repetition by Sir Walter Scott,[8] and through realization of Smollett's own opinion of Bath physicians as expressed in "The Adventures of Peregrine Pickle"[9]:

> It has been supposed, that his want of success in a profession where merit cannot always insure fame and affluence, was owing to his failing to render himself agreeable to the fair sex, whose favour is certainly of consequence to all candidates for eminence whether in physic or divinity. But his figure and address, which were uncommonly elegant and prepossessing, and his unsullied manners, render this supposition highly improbable. It is more likely that his irritable temper, increased by the teasing and uncomfortable circumstances of the profession, and his contempt for the servility, cunning, and quackery on the one hand, and the mysterious pedantry on the other, which the faculty practise, either from choice or necessity, were the real causes of his failure. It may be supposed also that his publications, as a general satirist and censor of manners, were far more calculated to retard his progress as a physician, than to augment his practice.

Bath, when Smollett knew it, was at the very height of a glory so resplendent as to assure a place in fiction. Most of us remember Jane Austen's pictures of Bath in "Persuasion" and "Northanger Abbey," and all of us have delighted in Mr. Pickwick's experiences in Bath; his introduction to the too perfect Mr. Bantam: his unfortunate evening at cards with Mrs. Colonel Wugsby and Miss Bolo who finally "went straight home in a flood of tears, and a sedan chair"; the delightful description of the great pump-room[10]:

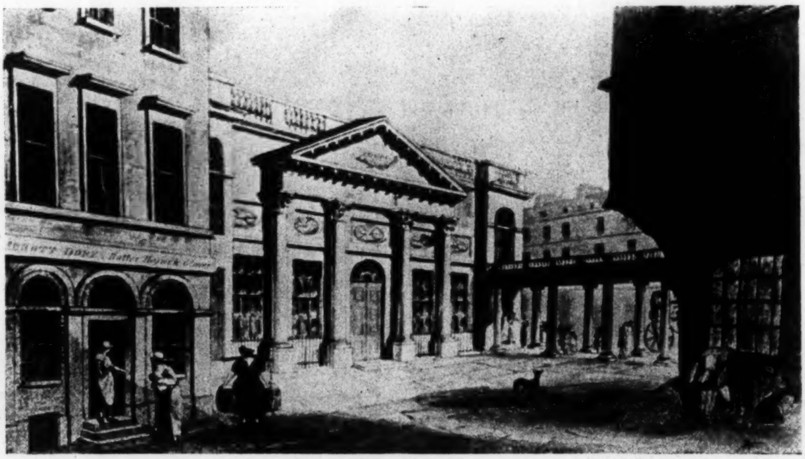


FIG. 4. THE PUMP ROOM.

> A spacious saloon, ornamented with Corinthian pillars, and a music gallery, and a Tompion clock, and a statue of Nash, and a golden inscription, to which all the waterdrinkers should attend, for it appeals to them in the cause of a deserving charity. There is a large bar with a marble vase, out of which the pumper gets the water; and there are a number of yellow-looking tumblers, out of which the company get it; and it is a most edifying and satisfactory sight to behold the perseverance and gravity with which they swallow it. There are baths near at hand, in which a part of the company wash themselves; and a band plays afterwards, to congratulate the remainder on their having done so. There is another pump-room, into which infirm ladies and gentlemen are wheeled, in such an astonishing variety of chairs and chaises, that any adventurous individual who goes in with the regular number of toes, is in imminent danger of coming out without them; and there is a third, into which the quiet people go for it is less noisy than either. There is an immensity of promenading, on crutches and off, with sticks and without, and a great deal of conversation, and liveliness, and pleasantry.

It was in Bath too that Mr. Winkle had his adventure with the sanguinary Dowler and that Mr. Weller attended the "friendly swarry, consisting of a boiled leg of mutton with the usual trimmings."

Smollett entered the life at Bath about 1746. Beau Nash became king of Bath in 1710 and died in 1761. The remarkable ability of this strange individual, who dominated Bath for fifty years, changed a ragged village which happened to contain hot springs into the foremost health and social resort of the British Isles. Nash began life with no assets beyond a facile and polite address and so hearty a distaste for anything approaching conventional work as to be quite safe for a long career at Bath once he found himself there. He was a gambler and adventurer who endowed his exploits with a degree of novelty and enterprise truly arresting. For example, Goldsmith[11] records the fact that in his younger days he won a bet by riding through a village naked on a cow. This strange person, when he became king of Bath, saw at once that only through the exercise of a certain amount of decorous restraint could Bath society become a unique part of English life. His influence, if we understand his age, was for good. People came to Bath because he made life comfortable, allowed it to be immoral enough to be interesting and guarded in all things against those unfortunate extremes of conduct which, pushed either toward good or bad, must ruin a place designed for large-scale entertainment. Smollett[12] speaks of Nash in "Roderick Random," making use of an anecdote said to be authentic.

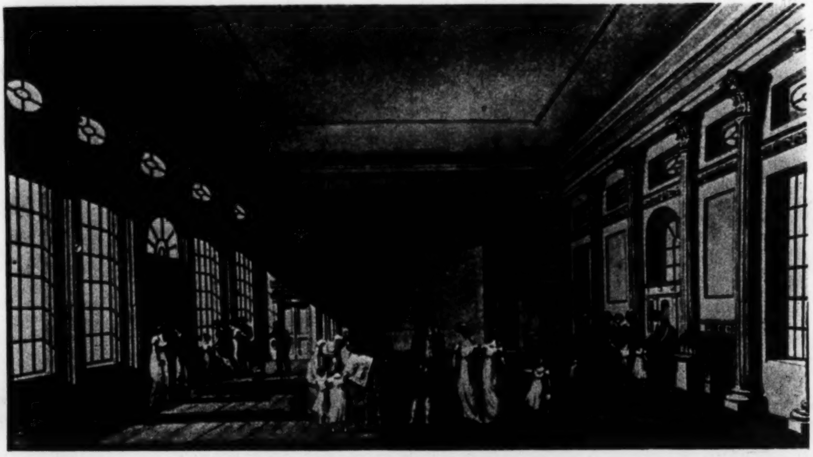


FIG. 5. The PUMP ROOM.

> The celebrated Mr. Nash, perceiving the disposition of the assembly, took upon himself the task of gratifying their ill-nature still further by exposing my mistress to the edge of his wit. With this view he approached us, with many bows and grimaces, and after having welcomed Miss Snapper to the place, asked her, in the hearing of all present, if she could inform him of the name of Tobit's dog. I was so much incensed at his insolence that I should certainly have kicked him where he stood, without ceremony, had not the young lady prevented the effects of my indignation, by replying with the utmost vivacity. "His name was Nash, and an impudent dog he was." This repartee, so unexpected and just, raised such an universal laugh at the agressor, that all his assurance was insufficient to support him under their derision; so that after he had endeavoured to compose himself by taking snuff and forcing a smile, he was obliged to sneak off in a very ludicrous attitude; while my Dulcinea was applauded to the skies, for the brilliancy of her wit, and her acquaintance immediately courted by the best people of both sexes in the room.

Bath under Beau Nash became more of a social than a health resort, but sick people always went there in great numbers and physicians of every sort gathered in search of plunder. Smollett's opinion of these individuals is not high. Peregrine Pickle[9] goes to Bath and finds:

> Among the secret agents of scandal none were so busy as the physicians, a class of animals who live in this place, like so many ravens hovering about a carcass, and even ply for employment like scullers at Hungerford Stairs. The greatest part of them have correspondents in London, who make it their business to inquire into the history, character, and distemper of every one that repairs to Bath for the benefit of the waters; and if they cannot procure interest to recommend their medical friends to these patients before they set out, they at least furnish them with a previous account of what they could collect, that their correspondents may use this intelligence for their own advantage. By these means, and the assistance of flattery and assurance, they often insinuate themselves into the acquaintance of strangers, and, by consulting their dispositions, become necessary and subservient to their prevailing

passions. By their connexion with apothecaries and nurses, they are informed of all the private occurrences in each family, and therefore enabled to gratify the rancour of malice, amuse the spleen of peevish indisposition, and entertain the eagerness of impertinent curiosity.

Guidott,[13] himself a Bath physician, writing in 1676, mentions fifteen physicians who had practiced in Bath up to his day. None are noteworthy. Nash, just prior to his ascendancy in Bath, distinguished himself by an argument with Dr. John Radcliffe, but I can find no evidence that this worthy doctor ever practiced in Bath,[14] though his royal patients went there frequently. Lists of the physicians of Bath in Smollett's time are available[15] and do not include the names of any of the very great. Stout George Cheyne was perhaps the most eminent. It was in Bath that he published his book on nervous diseases in which he records the strange case of Honorable Colonel Townsend[16] and from Bath come many of the amusing anecdotes which make him memorable.[17] Smollett's estimate of Bath as a place in which to enjoy oneself could not have been high. In "Humphrey Clinker," by all odds the pleasantest of his books, he voices this estimate through the character of Bramble.[18]

FIG. 6. BEAU NASH.

> You must know, I find nothing but disappointment at Bath, which is so altered, that I can scarce believe it is the same place that I frequented about thirty years ago. Methinks I hear you say, "Altered it is, without all doubt; but then it is altered for the better; a truth, which, perhaps, you would own without hesitation, if you yourself was not altered for the worse." The reflection may, for aught I know, be just. The inconveniences which I overlooked in the heyday of health, will naturally strike with exaggerated impression on the irritable nerves of an invalid, surprised by premature old age, and shattered with long suffering. But, I believe, you will not deny that this place, which nature and providence seem to have intended as a resource from distemper and disquiet, is become the very center of racket and dissipation. Instead of that peace, tranquillity, and ease, so necessary to those who labour under bad health, weak nerves, and irregular spirits; here we have nothing but noise, tumult, and hurry, with the fatigue and slavery of maintaining a ceremonial, more stiff, formal, and oppressive, than the etiquette of a German elector. A national hospital it may be; but one would imagine, that none but lunatics are admitted; and, truly, I will give you leave to call me so, if I stay much longer at Bath. But I shall take another opportunity to explain my sentiments at greater length on this subject . . . I was impatient to see the boasted improvements in architecture, for which the upper parts of the town have been so much celebrated, and t'other day I made a circuit of all the new buildings. The square, though irregular, is, on the whole, pretty well laid out, spacious, open, and airy; and, in my opinion, by far the most wholesome and agreeable situation in Bath, especially the upper side of it; but the avenues to it are mean, dirty, dangerous, and indirect. Its communication with the baths is through the yard of an inn, where the poor trembling valetudinarian is carried in a chair, betwixt the heels of a double row of horses, wincing under the currycombs of grooms and postillions, over and above the hazard of being obstructed, or overturned by the carriages which are continually making their exit or their entrance. I suppose, after

some chairmen shall have been maimed, and a few lives lost by those accidents, the corporation will think, in earnest, about providing a more safe and commodious passage. The Circus is a pretty bauble; contrived for show, and looks like Vespasian's amphitheatre, turned outside in. If we consider it in point of magnificence, the great number of small doors belonging to the separate houses, the inconsiderable height of the different orders, the affected ornaments of the architrave, which are both childish and misplaced, and the areas projecting into the street, surrounded with iron rails, destroy a good part of its effect upon the eye; and perhaps we shall find it still more defective, if we view it in the light of convenience. The figure of each separate dwelling-house, being the segment of a circle, must spoil the symmetry of the rooms, by contracting them towards the street windows, and leaving a larger sweep in the space behind. If, instead of the areas and iron rails, which seem to be of very little use, there had been a corridor with arcades all round, as in Covent Garden, the appearance of the whole would have been more magnificent and striking; those arcades would have afforded an agreeable covered walk, and sheltered the poor chairmen and their carriages from the rain, which is here almost perpetual. At present, the chairs stand soaking in the open street, from morning to night, till they become so many boxes of wet leather, for the benefit of the gouty and rheumatic, who are transported in them from place to place. Indeed, this is a shocking inconvenience that extends over the whole city; and I am persuaded it produces infinite mischief to the delicate and infirm. Even the close chairs, contrived for the sick, by standing in the open air, have their frieze linings impregnated, like so many sponges, with the moisture of the atmosphere; and those cases of cold vapour must give a charming check to the perspiration of a patient, piping hot from the bath, with all his pores wide open.

But to return to the Circus. It is inconvenient from its situation, at so great a distance from all the markets, baths, and places of public entertainment. The only entrance to it, through Gay-street, is so difficult, steep, and slippery, that, in wet weather, it must be exceedingly dangerous, both for those that ride in carriages, and those that walk afoot; and when the street is covered with snow, as it was for fifteen days successively this very winter, I don't see how any individual could go either up or down, without the most imminent hazard of broken bones. In blowing weather, I am told, most of the houses on this hill are smothered with smoke, forced down the chimneys by the gusts of wind reverberated from the hill behind, which, I apprehend likewise, must render the atmosphere here more humid and unwholesome than it is in the square below; for the clouds, formed by the constant evaporation

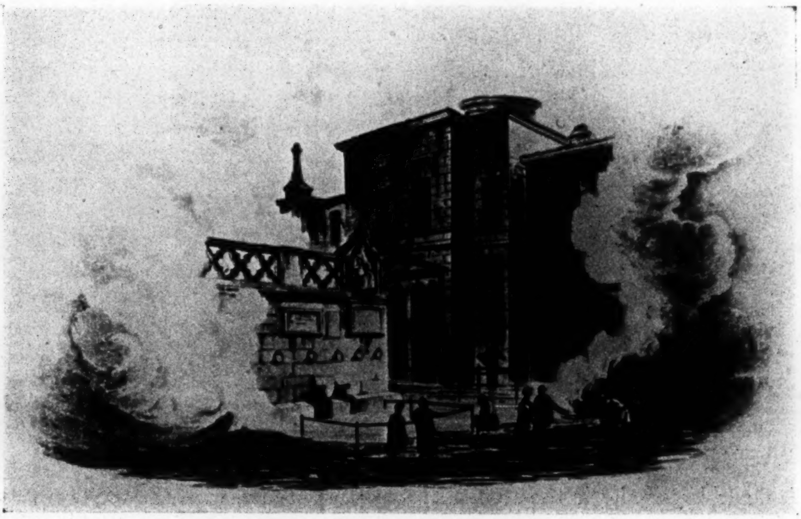


FIG. 7. THE KING'S BATH.

from the baths and rivers in the bottom, will, in their ascent this way, be first attracted and detained by the hill that rises close behind the Circus, and load the air with a perpetual succession of vapours. This point, however, may be easily ascertained by means of an hygrometer, or a paper of salt of tartar exposed to the action of the atmosphere. The same artist who planned the Circus, has likewise projected a crescent; when that is finished, we shall probably have a star; and those who are living thirty years hence, may, perhaps, see all the signs of the zodiac exhibited in architecture at Bath. These, however fantastical, are still designs that denote some ingenuity, and knowledge in the architect; but the rage of building has laid hold on such a number of adventurers, that one sees new houses starting up in every outlet and every corner of Bath; contrived without judgment, executed without solidity, and stuck together with so little regard to plan and propriety, that the different lines of the new rows and buildings interfere with, and intersect one another in every different angle of conjunction. They look like the wreck of streets and squares disjointed by an earthquake, which hath broken the ground into a variety of holes and hillocks; or, as if some Gothic devil had stuffed them all together in a bag, and left them to stand higgledy piggledy, just as chance directed. What sort of a monster Bath will become in a few years, with those growing excrescences, may be easily conceived. But the want of beauty and proportion is not the worst effect of these new mansions; they are built so slight, with the soft crumbling stone found in this neighbourhood, that I should never sleep quietly in one of them, when it blowed, as the sailors say, a cap-full of wind; and I am persuaded, that my hind, Roger Williams, or any man of equal strength, would be able to push his foot through the strongest part of their walls, without any great exertion of his muscles. All these absurdities arise from the general tide of luxury, which hath overspread the nation, and swept away all, even the very dregs of the people. Every upstart of fortune, harnessed in the trappings of the mode, presents himself at Bath, as in the very focus of observation.—Clerks and factors from the East Indies, loaded with the spoil of plundered provinces; planters, negro-drivers, and hucksters, from our American plantations, enriched they know not how; agents, commissaries, and contractors, who have fattened, in two successive wars, on the blood of the nation; usurers, brokers, and jobbers of every kind; men of low birth, and no breeding, have found themselves suddenly translated into a state of affluence, unknown to former ages; and no wonder that their brains should be intoxicated with pride, vanity, and presumption. Knowing no other criterion of greatness, but the ostentation of wealth, they discharge their affluence without taste or conduct, through every channel of the most absurd extravagance; and all of them hurry to Bath, because here, without any farther qualification, they can mingle with the princes and nobles of the land. Even the wives and daughters of low tradesmen, who, like shovel-nosed sharks, prey upon the blubber of those

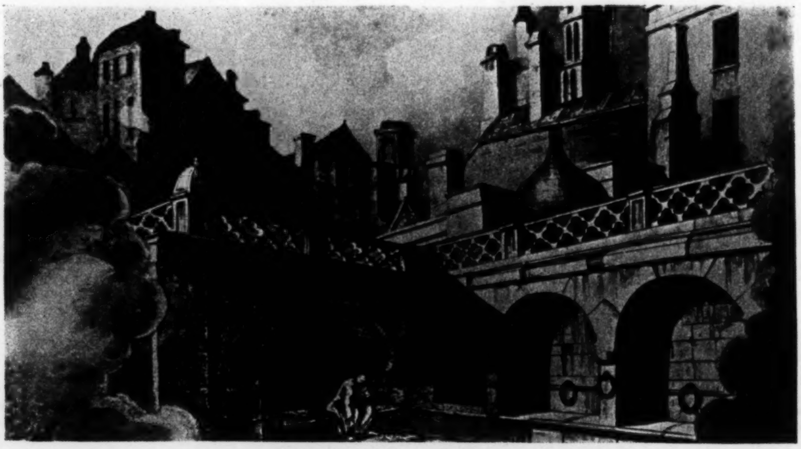


Fig. 8. The Queen's Bath.

> uncouth whales of fortune, are infected with the same rage of displaying their importance; and the slightest indisposition serves them for a pretext to insist upon being conveyed to Bath, where they may hobble country dances and cotillions among lordlings, squires, counsellors, and clergy. These delicate creatures from Bedfordbury, Butcher Row, Crutched Friars, and Botolph Lane, cannot breathe in the gross air of the lower town, or conform to the vulgar rules of a common lodging house; the husband, therefore, must provide an entire house, or elegant apartments in the new buildings. Such is the composition of what is called the fashionable company at Bath; where a very inconsiderable proportion of genteel people are lost in a mob of impudent plebeians, who have neither understanding nor judgment, nor the least idea of propriety and decorum; and seem to enjoy nothing so much as an opportunity of insulting their betters.

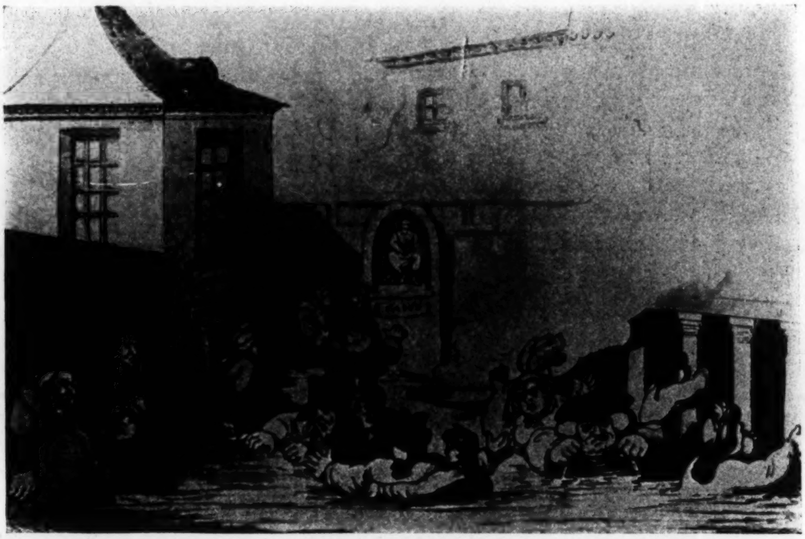


FIG. 9. IN THE KING'S BATH.

One went to Bath to talk, to play cards, to drink the waters and to bathe. The following, in the character of Lydia Melford,[19] pictures the bathing:

> At eight in the morning we go in dishabille to the pump-room, which is crowded like a Welsh fair; and there you see the highest quality and the lowest tradesfolks, jostling each other, without ceremony, hail, fellow, well met. The noise of the music playing in the gallery, the heat and flavour of such a crowd, and the hum and buzz of their conversation, gave me the headache and vertigo the first day; but, afterwards, all these things became familiar, and even agreeable. Right under the pump-room windows is the King's Bath; a huge cistern, where you see the patients up to their necks in hot water. The ladies wear jackets and petticoats of brown linen, with chip hats, in which they fix their handkerchiefs to wipe the sweat from their faces; but, truly, whether it is owing to the steam that surrounds them, or the heat of the water, or the nature of the dress, or to all these causes together, they look so flushed, and so frightful, that I always turn my eyes another way. My aunt, who says every person of fashion should make her appearance in the bath, as well as in the abbey church, contrived a cap with cherry-coloured ribbons to suit her complexion and obliged Win to attend her yesterday morning in the water. But, really, her eyes were so red, that they made mine water as I viewed her from the pump-room; and as for poor Win, who wore a hat trimmed with blue, what betwixt her wan complexion and her fear, she looked like the ghost of some pale maiden, who had drowned herself for love. When she came out of the bath, she took assafoetida drops, and was fluttered all day, so that we could hardly keep her from going into hysterics. But

> her mistress says it will do her good, and poor Win curtsies, with the tears in her eyes. For my part, I content myself with drinking about half a pint of the water every morning.

And this in the character of the lady's maid, Winifred Jenkins[19]:

> And I have been twice in the bath with mistress, and na'r a smoak upon our backs, hussy. The first time I was mortally afraid, and flustered all day, and afterwards made believe that I had got the heddick; but mistress said, if I didn't go, I should take a dose of bum-taffy; and so remembering how it worked Mrs. Gwyllim a penn' orth, I chose rather to go again with her into the bath, and then I met with an axident. I dropt my petticoat, and could not get it up from the bottom—but what did that signify?—they mought laff, but they could see nothing; for I was up to the sin in water. To be sure it threw me into such a gumbustion, that I know not what I said, not what I did, nor how they got me out and rapt me in a blanket.

The King's Bath is illustrated both in Natte's drawing and apparently in Rowlandson's cartoon; Barbeau,[15] utilizing many original resources, gives the following account of the bathing:

> Men and women bathed together, keeping more or less apart, the men in drawers and jackets, the women in brown linen costumes and chip hats. The ladies were carried from their lodgings to the baths in this costume, in sedan chairs, "hermetically closed," says a French traveller, "when the occupants were old, ugly or prudish, and artistically penetrable when they were finely formed." They were provided with a little wooden tray that floated on the water in front of them, and held handkerchief, snuff-box and patches, and thus they walked about in the water, either alone, or attended by a guide. Musicians played all the time; conversation, compliments and jests were exchanged between the bathers.

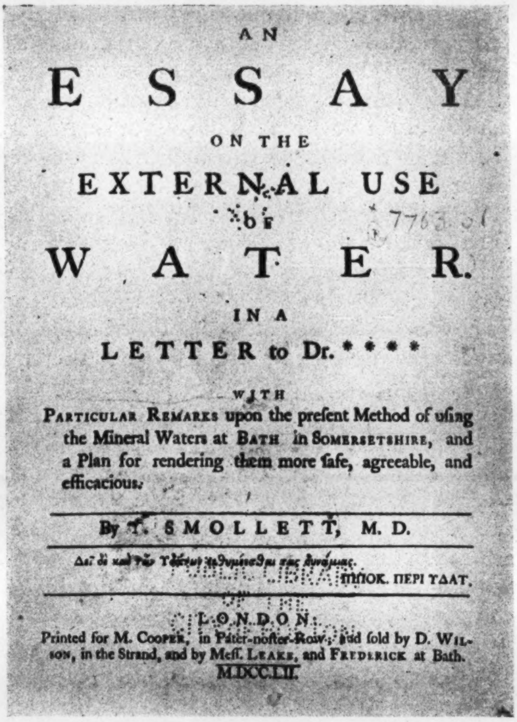
That the hygienic condition of the baths was not unexceptional is apparent from Smollett's report in the character of Bramble.[20]

> To Dr. Lewis
>
> Dear Dick,—I have done with the waters; therefore your advice comes a day too late. I grant that physic is no mystery of your making. I know it is a mystery in its own nature, and, like other mysteries, requires a strong gulp of faith to make it go down. Two days ago, I went into the King's Bath, by the advice of our friend Ch---, in order to clear the strainer of the skin, for the benefit of a free perspiration; and the first object that saluted my eye was a child, full of scrofulous ulcers, carried in the arms of one of the guides, under the very noses of the bathers. I was so shocked at the sight, that I retired immediately with indignation and disgust. Suppose the matter of those ulcers, floating in the water, comes in contact with my skin, when the pores are all open, I would ask you what must be the consequence? Good heavens, the very thought makes my blood run cold! We know not what sores may be running into the waters while we are bathing, and what sort of matter we may thus imbibe; the king's evil, the scurvy, the cancer, and the pox; and, no doubt, the heat will render the *virus* the more volatile and penetrating. To purify myself from all such contamination, I went to the Duke of Kingston's private bath, and there I was almost suffocated for want of free air, the place was so small, and the steam so stifling.
>
> After all, if the intention is no more than to wash the skin, I am convinced that the simple element is more effectual than any water impregnated with salt and iron; which being astringent, will certainly contract the pores, and leave a kind of crust upon the surface of the body. But I am now as much afraid of drinking as of bathing; for, after a long conversation with the doctor, about the construction of the pump and the cistern, it is very far from being clear with me, that the patients in the pump-room don't swallow the scourings of the bathers. I can't help suspecting, that there is, or may be, some regurgitation from the bath into the cistern of the pump. In that case, what a delicate beverage is every day quaffed by the drinkers, medicated with the sweat, and dirt, and dandruff, and the abominable discharges of various kinds, from twenty different diseased bodies, parboiling in the kettle below. In order to avoid this filthy composition, I had recourse to the spring that supplies the private baths on the Abbey Green; but I at once perceived

something extraordinary in the taste and smell; and, upon inquiry, I find, that the Roman baths in this quarter were found covered by an old burying ground belonging to the abbey, through which, in all probability, the water drains in its passage; so that, as we drink the decoction of living bodies at the pump-room, we swallow the strainings of rotten bones and carcasses at the private bath—I vow to God the very idea turns my stomach! Determined, as I am, against any farther use of the Bath waters, this consideration would give me little disturbance, if I could find any thing more pure, or less pernicious, to quench my thirst; but although the natural springs of excellent water, are seen gushing spontaneous on every side from the hills that surround us, the inhabitants in general make use of well water, so impregnated with nitre, or alum, or some other villainous mineral, that it is equally ungrateful to the taste, and mischievous to the constitution. It must be owned, indeed, that here, in Milsham-street, we have a precarious and scanty supply from the hill, which is collected in an open basin in the Circus, liable to be defiled with dead dogs, cats, rats, and every species of nastiness, which the rascally populace may throw into it from mere wantonness and brutality.

"The New Prose Bath Guide"[15] to which we have referred, remarks: "Neither Sex can come out of the *King's Bath* without being stripped quite naked by an old Woman, who takes off the wet and puts on dry Apparel," and also states that the Duke of Kingston's baths are "now the only Place where Persons of Condition, or Delicacy, can bathe decently."

The unflattering opinions of Bath found in "Humphrey Clinker" were published long after Smollett's attempt to practice there, but Bramble's statements are in the main reiterations of portions of Smollett's single medical paper. In 1752, he wrote "An Essay on the External Use of Water."[21] The main reason for this contribution seems to have been a desire to support a Mr. Cleland, another physician who wished to improve conditions at Bath and had fallen hopelessly foul of the authorities in his effort to do so. In his essay Smollett declares for pure water as the main reason for the benefits derived from a course at Bath. He has no faith in the ferrous and sulphurous additions which have such reputations as the essential adjuvants of mineral waters. He quotes a variety of authorities in support of his contention which manifestly must have rendered him anything but popular with both the civil and medical rulers of Bath, and concludes with a bitter blast directed at the bathing situation in general.



AN

ESSAY

ON THE

EXTERNAL USE

OF

WATER.

IN A

LETTER to Dr. * * * *

WITH

PARTICULAR REMARKS upon the preſent Method of uſing the Mineral Waters at BATH in SOMERSETSHIRE, and a Plan for rendering them more ſafe, agreeable, and efficacious.

By T. SMOLLETT, M. D.

Δεῖ δὲ καὶ τῶν Υδάτων ἐνθυμέεσθαι τας δυνάμιας.

ΙΠΠΟΚ. ΠΕΡΙ ΥΔΑΤ.

LONDON:

Printed for M. COOPER, in Pater-noſter-Row; and ſold by D. WILSON, in the Strand, and by Meſſ. LEAKE, and FREDERICK at Bath.

MDCCLII.

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FIG. 10. TITLEPAGE OF SMOLLETT'S MEDICAL PAPER.

Of the final and fourth aspect of Smollett's medical life I shall do no more than give a suggestion. From 1762 until his death in 1771 Smollett wandered about, always seeking health and anxious and despondent much of the time. The dreary and uninteresting character of the "Travels Through France and Italy" and the unspeakable nastiness of "The History and Adventures of an Atom" described by Hudson as "the dullest as well as the obscenest 'classic' in the language" reflect his unfortunate condition. While there is medical material in these books it cannot be considered a contribution to the medical history of Smollett's day.

In 1762 or thereabouts he wrote the following letter to William Hunter:[22]

> Dear Hunter,
>
> I have been hedging & lurching these Six weeks, in expectation of that cursed Ship from Jamaica, which is at last arrived without letter or Remittance— I do not know whether God will have it that you should endure the Persecution of my wants, without flinching or that I should at length tire you out, & be shaken off at once but certain it is, I am at present in consequence of little Demands which I have put off to the last day of Procrastination, in absolute necessity of eight or ten pieces, without which I can no longer answer the Occasions of my Family. This Declaration is by God himself! like wormwood & Brimstone to me: and were myself alone concerned, I would rather perish than have Recourse to such beggarly sollicitation; for heaven's Sake, do not look upon me as one of those Sneaking Rascals who can stoop to subsist upon what they can borrow, without shame, Remorse, or purpose of Repayment. I am an unfortunate Dog whose Pride Providence thinks proper to punish with the Tortures of incessant Mortification: & I resent my Lot accordingly, but in the midst of those Littlenesses to which my Destiny drives me I am still with a due Sense of the Predicament in which I stand.
>
> Yours, &c.
> Ts. Smollett.

To this letter Dr. Hunter replied with a remittance of £50. Smollett answers:

> Dear Sir,
>
> I am much affected by the last mark of your Friendship which I received the day before I set out on my Journey; & hope you will give me leave to enjoy it in my own way. I have been at Southampton & crossed the Country from the New Forrest to Bath where I am now settled in private Lodgings. My Health was so indifferent during the whole Journey, that I was obliged to get out of Bed every night and Sit two hours until the Difficulty of Breathing had abated. Since my arrival in Bath I have in spite of a fresh Cold, slept very well, without any Interruption from the Asthma. I drink moderately of the water; ride out every day on the Downs, eat like a horse, & if I could recover a little Flesh I should think myself already cured; but, the Truth is, I am thinner than when I last saw you & begin to be afraid of looking in the Glass of a morning. I believe my breathing so easily is owing to the warmth and moisture of the air at Bath, which seems to be peculiarly adapted to my lungs: yet I can feel a very sensible Effect from the waters. I have no sooner drank a large Glass of them hot from the springs than my Face my Hands & Feet begin to glow; and the Sensation is succeeded by an itching and tingling all over the Surface of my Body, resembling what is called the prickly Heat in the West Indies. I think I can plainly perceive these mineral waters opening up the obstructed Capillaries, & restoring the Perspiration which in the Extremities had been in a great measure lost. I intend in a few days to bathe with a view to open still more effectually the Strainer of the Skin. I beg pardon for taking up so much of your time; but the subject is interesting to
>
> (Dear Doctor),
> your much obliged & affectionate
> humble Servt. Ts. Smollett.
>
> Bath Octr. 2, 1762
>
> My Compts. to our friends, Dr. Macaulay & Pitcairn.

And finally, in the spring of 1771 (he died in September), he writes John Hunter[23]:

> If I can prevail upon my wife to execute my last will, you shall receive my poor carcass in a box after I am dead, to be placed among your rarities. I am already so dry and emaciated that I may pass for an Egyptian mummy without any other preparation than some pitch and painted linen.

BIBLIOGRAPHY

1. Smollett, T. The Expedition of Humphrey Clinker, 1771, Letter from Cameron, Aug. 28.
2. Smollett, T. The Adventures of Roderick Random, 1748, Chap. vii.
3. Smollett, T. *Op. Cit.*, Chap. xix.
4. Smollett, T. *Op. Cit.*, Chap. xvii.
5. Smollett, T. *Op. Cit.*, Chap. xxiv.
6. Smollett, T. *Op. Cit.*, Chaps. xxv, xxvi.
7. Anderson, R. The Life of Tobias Smollett, M.D., with Critical Observations on his Work. Ed. 5, Edinburgh, 1806, p. 35.
8. Scott, Sir W. Lives of the British Novelists.
9. Smollett, T. The Adventures of Peregrine Pickle, 1751, Chap. lxx.
10. Dickens, C. Pickwick Papers, 1837, Chap. xxxv.

11. GOLDSMITH, O. Life of Nash.
12. SMOLLETT, T. The Adventures of Roderick Random, 1748, Chap. lv.
13. GUIDOTT, T. A Discourse of the Bathe and the Hot Waters There, 1676. Contains a final chapter on The Lives and Character of the Physicians of Bath.
14. Some Memoirs of the Life of John Radcliffe, M.D. Ed. 2, 1715.
15. BARBEAU, A. Life and Letters at Bath in the Eighteenth Century, 1904, p. 94. This is a most delightful description of eighteenth century life and manners.
The New Prose Bath Guide, for the year 1778, p. 28.
The New Prose Bath Guide; or, Useful Pocket Companion, 1789, p. 70.
16. CHEYNE, G. The English Malady; or, A Treatise of Nervous Diseases of all Kinds, 1733, p. 307.
17. Some medical worthies of Bath, *Practitioner*, Lond., 1906, LXXVI, 109.
18. SMOLLETT, T. The Expedition of Humphrey Clinker, Letter from Bath, April 23.
19. SMOLLETT, T. *Op. Cit.*, Letter from Bath, Apr. 26.
20. SMOLLETT, T. *Op. Cit.*, Letter from Bath, Apr. 28.
21. SMOLLETT, T. An Essay on the External Use of Water, 1752, 34–40.
22. Brit. M. J., Lond., 1904, II, 1096.
23. Medical men of letters: Tobias George Smollett. *Practitioner*, Lond., 1902, LXVIII, 195.

MASTER DERMATOLOGISTS*

BASED ON DISEASES NAMED AFTER THEM

By HERMAN GOODMAN, M.D.

NEW YORK CITY

FOR little more than a year, I have been collecting material for a paper on "Eponyms of Dermatology,"[1] and have especially arranged some of the data in concise form and in chronological order for the ANNALS OF MEDICAL HISTORY. The names of the men cited have come down to us by reason of the fact that one or more dermatologic entities or diseases have been named after them; literally, they are godfathers of dermatology. The names of many master dermatologists who did not have diseases named after them have been omitted in this article, but I hope at some future date to enlarge on the present study by presenting others on the eponyms of dermatologic anatomy, pathology and therapeutics.

THE BEGINNING OF RECENT HISTORICAL DERMATOLOGY

European medicine began in Greece at the time of her highest civilization, the period of her supremacy in philosophy, lyric and dramatic poetry, sculpture and architecture. Hippocrates lived in this period. The "Father of Recent Medicine" has icterus gravis named after him as Hippocratic morbus niger. Calvities Hippocratica is the designation of a type of total baldness and Hippocratic nails are those resulting from chronic pulmonary and cardiac disease. Hippocrates was born on the Island of Cos about 460 B.C. After the death of his father, he went to Athens for the study of surgery. The profession of medicine owes to him the art of clinical inspection and observation. The physician's oath has been named the Hippocratic oath, but it is far-fetched to consider him its author. Hippocrates was the founder of Grecian dermatology. His influence persisted for over two thousand years. His was the period of symptomatic designation of diseases of the skin and some of the names such as alopecia, psora and lepra (scaly disease), persist. Hippocrates died 377 B.C.

No other name of the classical period of medicine comes to us in dermatology. After the destruction of Corinth (146 B.C.), Rome became the center of medical learning, and although Roman medicine was almost entirely in the hands of Greeks, the name of a Roman litterateur comes next in our eponyms.

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*Read before a stated meeting of the Section of Historical Medicine of the New York Academy of Medicine, April 24, 1924.

[1] Eponyms of dermatology (an alphabetical arrangement with many details, references, and illustrations). *Arch. Dermat. & Syph.*, Chic., IX, vi, 675, June, 1924.

Aurelius Cornelius Celsus was born about 53 B.C., and died about 7 A.D. This was about the time of the reign of Tiberius Caesar. Celsus was a general student and not a physician. His knowledge of medicine was practically complete, for the time, and his writings are the oldest medical documents after those of Hippocrates. Many advances in dermatology are recorded in the script of Celsus. In the sixth book Celsus deals with the diseases of the skin and the venereal diseases: some forty skin diseases are described. One may recognize, under various designations and groupings, the ophiasis type of alopecia areata, erythema multiforme, rheumatic affection, furuncle, carbuncle, anthrax, tuberculous ulcer, bubo, condyloma acuminatum, verruca vulgaris and clavus; the bullous diseases as miliaria, vesicular eczema, dermatitis venenata, dermatitis calorica and dermatitis congelationis. Of the venereal diseases, such local affections as ulcus molle, genital abscess, phimosis, etc., were known. Alopecia areata is still area Celsi; kerion Celsi is trichophytosis, and vitiligo Celsi is anesthetic leprosy, although the term leprosy was not used by Celsus.

In this old period, we have another Greek, one whose work is closest to that of Hippocrates, the clinician. Aretaeus was born in Cappadocia about the second half of the first century (30–90 A.D.). He lived toward the close of the reign of Nero, and was known to have resided in Alexandria. He was a good clinician and an attractive medical author. He described symptoms accurately, and the descriptions are readily recognized. He gave excellent accounts of pneumonia, pleurisy with empyema, diabetes, tetanus, diphtheria, the aura of epilepsy and very full descriptions of various types of insanity. The eponym we have is elephantiasis Aretaei, or nodular leprosy. Aretaeus had a treatment for leprosy which was classical.

In our recital of dermatologic eponyms of disease, we must pass over as fruitless the centuries which saw the fall of the Western Roman Empire (476 A.D.), the birth of Mohammed (570), the Crusades (1096–1271), Magna Charta (1215), Dante (1265–1321), the Black Death (1348–1350), Michelangelo (1475–1564), the invention of printing (1448), the discovery of America, Shakespeare (1564–1616), Francis Bacon, Rembrandt (1607–1669), the landing of the Pilgrims, Spinoza (1632–1677), Newton (1642–1727), the Great Plague and the Great Fire of London (1665), Voltaire (1694–1778), and the invention of the fire engine (1710). In medicine, these were the centuries of formation of hospitals and universities far too numerous to mention, the European pandemic of syphilis (1496–1500), the birth of gross anatomy and legal dissection, the invention of the microscope, the transfusion of blood, and inoculation for smallpox (Lady Mary Wortley Montagu).

POST-HIPPOCRATIC OR POST-HUMORAL PERIOD OF DERMATOLOGY

Hieronymus Mercurialis had had his book on cutaneous diseases published by one of his pupils (1571) long before we have the next dermatologic eponym, Werlhoff's disease, or purpura hemorrhagica. Paul Gottlieb Werlhoff was born in Germany in 1699, and died in 1767. He was a good student, a trained observer, a talented physician, a recognized teacher and a writer. The reference we have is a dissertation dated 1735, from Brunswick.

In the next interim, Daniel Turner published the first English book on dermatology (1714). We have come to the period of the invention of the steam engine by Watt (1765), and have Pott's disease, or chimney-sweep cancer of the scrotum. Percival Pott was born in 1713, and died in 1788. He was surgeon in St. Bartholomew's and was recognized as a genius. He was a teacher of John Hunter. Pott is remembered as the describer of Pott's fracture. It was while confined to bed, a victim of the fracture which he described, that Pott took the time to record some of his experiences, including that of the skin affection with which his name is associated.

This is the time, too, of the Hunterian chancre, a type of chancre of syphilis. John Hunter was born in Scotland in 1728. He became a pupil, and later assistant, of his brilliant brother William, whom John surpassed as a surgeon. Hunter personally prepared over ten thousand museum specimens at a cost of £70,000. John Hunter made numerous studies, but his name comes to us as that of the man who differentiated the hard or Hunterian chancre from chancroid, but he confounded gonorrhea with syphilis. At the age of forty, he inoculated himself in the famous experiment of using supposedly gonorrheal pus on a non-mucous surface, and acquired syphilis. He developed angina pectoris, and died in a fit of anger in 1793.

The year of the American Revolution saw the publication of the classification of diseases of the skin by Plenck, the inspiration of many later systems and schemes of the specialty. It is the period of Priestley's work on the isolation of oxygen, nitrous oxide and ammonia. It is the time of Chabert's disease, or symptomatic anthrax. Philibert Chabert was born in France in 1737. He was probably the most celebrated veterinary specialist of his time. He has also Oleum contra taenium Chaberti named after him. He died in 1814.

The year Cavendish discovered hydrogen, Underwood gave us sclerema neonatorum, or Underwood's disease. Michael Underwood was born in 1737 and died in 1820. He was a London pediatrician. The disease was first called "hidebound." Until 1877, it was mistaken for edema neonatorum, but Parrot drew the distinction between the two. The first recorded case of sclerema neonatorum occurred in Stockholm Hospital in 1718.

The French Revolution saw the birth of a new era in dermatology, and a description of Willan's leprosy, or psoriasis. Robert Willan was born in 1757, and died in 1812. He was an English Quaker. He has been variously called the creator of dermatology, or perhaps more truthfully, the initiator of the new era in dermatology, and founder of the modern epoch in skin diseases. Willan gave the first valuable classification of skin diseases, and was the first to attempt a complete classification on Plenck's system. Willan was famous for his judicious selection and accurate definition of terms. He extricated psoriasis from the heterogenous group of skin diseases. He divided the purpuras into simplex and hemorrhagica. He cleared up the nature of eczema for his time. He distinguished lupus, hence Willan's lupus. He distinguished tinea versicolor from other pigmentary diseases. He gave the original description of prurigo mitis. Under the name of icthyosis cornea, Willan quoted the first known case of scleroderma, that of Curcia in Naples in 1752.

Linked with Willan is the name of his friend and pupil, Bateman, for whom Bateman's disease, or molluscum contagiosum, is named. Thomas Bateman was born in England in 1778. His thesis was on the subject of the hemorrhages of petecheal type. Other diseases known as Bateman's disease are: purpura senilis; alopecia areata; ecthyma; herpes iris; and lichen urticatus. Bateman knew chilitis exfoliativa as psoriasis labialis. Bateman was a worthy successor to Willan, and not only completed and amplified the teachings of his senior, but published his writings as well. Bateman died in 1821.

The year of the invention of the steamboat by Fulton gave us Alibert's disease, or mycosis fungoides. Jean Louis Alibert was born in France in 1766. He was the first to use the painter's palette and burin in the delineation of diseases of the skin. He was the founder of the French school of dermatology. He evolved a natural method of classifying skin diseases which caused much confusion and did not gain universal acceptance. He was the first to describe mycosis fungoides. He is accredited with the description of pustule d'alep, which is also called Alibert's disease. Cheloid also has Alibert's name attached to it. There is a mentagra of Alibert, or sycosis of the beard. Alibert, who was titled a baron, died in 1837.

Rodent ulcer of the face is known as Jacob's ulcer, after Arthur Jacob, of Ireland, who was born in 1790 and died in 1874. He was especially proficient in anatomical studies and diseases of the eye.

Cancerous ulcer of the leg is known as Marjolin's ulcer, after Jean Nicolas Marjolin, a Frenchman, born in 1780. He was a professor of pathology and an eminent practitioner. He died in 1850.

A short time after the first steamboat crossed the Atlantic, Bayle's disease was named. Antoine Bayle was born in France in 1799. He was a distinguished physician and an extraordinary pathologist. He was responsible for a number of studies, and general paresis is named after him, Bayle's disease. He died in Paris in 1858.

About the time of Laënnec's prime, we find Rayer's disease, or xanthoma. Pierre François Olive Rayer was born in 1793. He was an advanced worker in pathology, natural history, therapeutics, epidemiology and diseases of the kidney. He was the first to differentiate acute from chronic eczema. He had a great influence on Erasmus Wilson. Rayer published studies of glanders, farcy, chilitis exfoliativa and adenoma sebaceum. Rayer died in 1867.

A year after Bright described essential nephritis, Biett's disease, or lupus erythematodes migrans, was named. Laurent Théodore Biett was born in 1781. He was a pupil of Alibert of Paris, and of Willan and Bateman. The collar of Biett is the name given to a manifestation of papular syphilis. Biett died in 1840.

Cazenave, a pupil of Biett, was born in 1795. He has lupus erythematosus named after him, as Cazenave's disease. Cazenave gave the original description of pemphigus foliaceus, hence, Cazenave's disease. Cazenave died in 1877.

The year of the founding of the British Medical Association, Hodgkin's disease was named. Thomas Hodgkin was born in England in 1797. He was a Friend. He was medical adviser to Moses Montifiore, with whom he traveled extensively. Hodgkin recorded that the disease which bears his name had been vaguely outlined by Malpighi in 1665. Wilkes independently discovered the disease, but with a generous desire to perpetuate the name of his teacher, he gave the morbid state the name of Hodgkin's disease. Hodgkin wrote an account of insufficiency of the aortic valves three years before Corrigan. Hodgkin died in 1866.

Skoda's treatise on percussion and auscultation was published the same year as Schoenlein's disease, or purpura rheumatica. Johann Lucas Schoenlein was born in Germany in 1793. He gave his lectures in German instead of Latin. He disclosed the Achorion schönleinii, and described his discovery in a communication only twenty lines long.[2] The Achorion was independently described by Gruby in 1841. Schoenlein died in 1864.

In 1842, Long operated under ether anesthesia and Gruby contributed to the description of tinea tonsurans, hence, named Gruby's disease. David Gruby was born in Hungary in 1810. He studied in Vienna and specialized in anatomy. Restrictions against Jews operating turned Gruby to microscopy and he went to Paris in 1839. He published his observations on tinea and favus, and the type of work he did was only recently revived by Sabouraud. Although Schoenlein first demonstrated the fungus which Remak named after him, he did not recognize its etiologic significance, which was first demonstrated by Gruby. Gruby died in 1898.

The year Howe patented the sewing machine, Eichstedt established the relation between pityriasis versicolor and the Microsporon furfur, hence Eichstedt's disease. The parasite was christened by Charles Robin. Eichstedt died in 1892.

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[2] *Arch. f. Anat., Physiol. u. Wissensch. M.*, Berlin and Leipz., 1839.

About the time that Oliver Wendell Holmes pointed out the contagious nature of puerperal fever, Carl Wilhelm Boeck had scabies named after him, Boeck's disease. Carl Wilhelm Boeck was born in Norway in 1808. His first published paper was on the *Spedalsked Sygdom* or elephantiasis Graecorum. Carl Wilhelm Boeck died in 1875.

One year after the founding of the American Medical Association and the New York Academy of Medicine, Danielssen, with Boeck, worked on leprosy, which has been named Danielssen's disease, and Danielssen-Boeck disease. Danielssen was born in 1815. He was a pharmacist, who later studied medicine. His interests other than medicine were many, including the theater, literature and biology. Danielssen died in 1894.

The year 1855 saw Addison's description of adrenal disease, and Claude Bernard's demonstration of the production of diabetes by puncture of the fourth ventricle. Thomas Addison was born in England in 1793. He was a student of Bateman. His book on the constitutional effects of disease of the suprarenal capsules was published in London in 1855. Regarded as a scientific curiosity in Addison's time, it is now known as an epoch-making contribution. Although cases had been recorded as early as 1823, it was the sagacity of Addison, which detected the relation between well-marked constitutional symptoms of the affection, the peculiar pigmentation of the skin and the structural changes in the suprarenal bodies. Trousseau was the first to propose calling the syndrome Addison's disease. Vitiligoidea, now known as xanthoma, was described by Addison and Gull; the same co-authors described adenoma sebaceum; and morphea or circumscribed scleroderma is also known as Addison's keloid. Addison died in 1860.

Congenital syphilitic abscess of the thymus was described by Paul Antoine Dubois and named after him, Dubois' disease. Dubois was born in France in 1795, and was an obstetrician and author. He died in 1871.

During the period that Darwin was preparing "The Origin of Species," Rollet made the distinct advance of recognizing the possibility of mixed infection of one sore with syphilis and chancroid. This established the dualist theory of venereal infection. Joseph Pierre Rollet was born in France in 1824, and died on the day he was to preside at the meeting of the Congress of the French Society of Syphilology and Dermatology, 1894. The mixed chancre is named Rollet's disease.

Florence Nightingale had come into prominence when Camille Melchior Gibert described pityriasis rosea, which bears his name. Gibert was born in 1797. He was an energetic representative of the Willan system in France. Gibert recognized the importance of parasitic diseases among school children. He died in 1866.

Samuel Wilks, born in England in 1824, described a disease produced by postmortem examination which we know as Wilks' disease, or verruca necrogenica. Darier notes that the disease was described by Laënnec. Wilks died in 1911.

Hydrotherapy had been established and Pasteur had grown anaerobic bacteria when Raynaud described the affection known as Raynaud's disease, or symmetrical gangrene of the extremities. Raynaud died in 1881, at the age of forty-seven.

Lister had introduced antiseptic surgery, and Abbé's oil immersion lens was known when Volkmann's disease, or cheilitis glandularis was described. Richard von Volkmann was born in 1830. He was a surgeon of the highest attainments and accredited with the first description of tar and paraffin cancer. He died in 1889.

Colloid milium was described by Ernest Wagner in 1866. The disease is hence known as Wagner's disease.

We come now to a man who bridges two periods in dermatology. Erasmus Wilson was born in England in 1809. He made many advances in dermatology, and his work was a landmark in the history of the English school of dermatology. His paper on lichen planus brought the eponym Wilson's disease. He was the first to describe dermatitis exfoliativa, also known as Wilson's disease. Wilson estimated the number of hairs on the human scalp as 100,000. He described trichorrhexis nodosa as trichoclasis. Wilson classified the diseases of the skin on a thorough anatomical basis. He was recognized as a brilliant and versatile leader among the profession in London. He died in 1884.

The Birth of Dermatopathologic Anatomy

On the Continent, we have the founder of the histologic school of dermatology coming to the fore. Ferdinand von Hebra was born in Austria in 1816. Skoda gave him charge of an insignificant skin clinic, which, under Hebra, assumed world-wide fame. In his day, Hebra was the greatest medical man in Vienna. He had the gift of observation, and many descriptions of diseases were original with him. He distingushed the syndrome of erythema multiforme from the heterogenous group of the erythemas, hence Hebra's disease. He was the first to describe impetigo herpetiformis, prurigo ferox (Hebra's disease) and lichen ruber, or pityriasis rubra, also known as Hebra's pityriasis. Lupus disseminatus is another disease linked with Hebra's name. Rhinoscleroma was first described by Hebra, as well as acne cachecticorum follicularis, or lichen scrofulosorum. Hebra, under the influence of Rokitansky (1804–1878), founder of pathological anatomy, applied the general principles of pathology to skin diseases. Hebra died in 1880.

Friedrich Wilhelm Felix von Baerensprung was born in 1822 in Germany. He was one of the nineteenth century leaders of dermatology. He made many original microscopic studies. He believed that molluscum was a contagious affection. He described eczema marginatum with studies on the parisitology, hence named Baerensprung's disease. Baerensprung's erythrasma gains its name by reason of his discovery of the Microsporon minutissimum in 1862. Baerensprung died of dementia paralytica in 1864.

In France, Bazin had a great influence on dermatology. Antoine Pierre Ernest Bazin was born in 1807. He made many studies on the causation of the tineas, and described the animal-to-man transference of these organisms. Bazin's disease, or erythema induratum, was first described in 1861. Other diseases described by Bazin include mycosis fungoides, acne varioliformis, acne keloid and hydroa vacciniforme, which later became Hutchinson's summer eruption. Reference to buccal psoriasis as Bazin's disease has been found. Bazin died in 1878.

Marie Guillaume Alphonse Devergie was born in France in 1798. Pityriasis rubra pilaris, named Devergie's disease, had a remarkable history in that Hebra described lichen ruber, and Kaposi described lichen ruber acuminatus. At the Dermatological Congresses of 1889 and 1892, it was finally conceded that the three diseases were identical. Devergie opened the field of etiology in dermatology; he discussed the etiology as climatic, hereditary, temperamental, according to age, and skin constitution. Devergie was the codescriber with Baerensprung of eczema marginatum. He died in 1879.

Pasteur was investigating silkworm disease, and Mendel was at work in his monastery garden, when Tilbury Fox (1836–1879) proved that impetigo contagiosa could be experimentally inoculated, and the name of impetigo of Tilbury Fox was given it. Tilbury Fox studied dermatology with his brother, Thomas Fox. He is accredited with the first descriptions of porrigo (the present impetigo), of dermatitis herpetiformis (Duhring's disease), lymphangioma (with Colcott Fox), and the xanthelasmoidea type of urticaria pigmentosa.

Urticaria pigmentosa was described by Nettleship in 1869 as "chronic urticaria leaving stains." The name was given by

Sangster in 1879, but the disease is known as Nettleship's disease.

Paxton's disease, or Leptothrix, was described in 1869; the disease was named by Erasmus Wilson.

Icterus neonatorum is known as Buhl's disease, after Ludwig von Buhl, a distinguished German pathologist and physical diagnostician (1816–1880).

The study of leprosy received a great impetus with Hansen's discovery of the causal relation of the bacillus of leprosy to the disease. Gerhard Armauer Hansen was born in Norway in 1841. He made his mark in microscopic anatomy, studied leprosy under Danielssen and Boeck, established a system of isolation of lepers which materially reduced the number of cases arising in Norway, and revolutionized the conception of the disease. Hansen was president of the International Leprosy Congress in 1910. He died suddenly in 1912.

We reach the first American eponym in dermatology with erythromelalgia, or Weir-Mitchell's disease. Silas Weir Mitchell was born in Philadelphia in 1830. He was the son of a prominent physician, and professor of medicine at Jefferson Medical College. Weir Mitchell's life has been an inspiration to many, and in addition to his high attainments in the art of medicine, he was well known for his skill as a novelist, biographer and poet. The disease which bears his name was described in 1872. It is said that Paget made an early note on this disease and that Graves gave an independent description. The disease has also become known as Gerhardt's disease.

Ehrlich had introduced dried blood smears and improved staining methods when Sir William Withey Gull (1816–1890) described myxedema, or Gull's disease. Gull was preeminent as a clinician, and held the post of physician to Queen Victoria.

Eduard Heinrich Henoch was born in Germany in 1820. He contributed the description of purpura fulminans, which is known as Henoch's disease, in 1874. According to Osler, Robert Willan first described a purpura with visceral symptoms. Henoch died in 1900.

Sir James Paget was born in England in 1814. There are two diseases named after him, that of the skin being a disease of the mammary areola preceding mammary cancer, which he described in 1874, and the second Paget's disease being osteitis deformans. According to Paget's own observations, it is not within the concept of the skin affection named after him to have so-called extra-mammary Paget's disease. Paget died in 1899.

Baelz (1845–1913), a German, with a wide experience in the Orient, is accredited with cheilitis glandularis, or Baelz's disease.

The Bell telephone was introduced the year that Edward Headlam Greenhow of England (1814–1888) published his cases of the disease to which the name of Greenhow's disease has been given. The disease was vagabond's disease simulating morbus Addisonii. It constituted the pityriasis niger of Willan.

Robert William Taylor was born in England in 1842. He came to America as a boy, studied pharmacy and then medicine. He was professor of dermatology at the College of Physicians and Surgeons and at Vermont. He described a rare form of localized or partial atrophy of the skin, which is known as Taylor's disease, or idiopathic progressive atrophy of the skin.

Exfoliative dermatitis is known as Ritter's disease, after Gottfried Ritter von Rittersheim, a German pediatrician (1820–1883).

Breisky's disease is kraurosis vulvae, and was described by August Breisky in 1875, the year that Neisser discovered the gonococcus. Breisky (1832–1889) was a gynecologist. Weir and Tait had recorded cases of kraurosis vulvae prior to Breisky but they did not appreciate the nature of the disease.

Another American who has had a disease named after him is James Nevins Hyde, born in Connecticut in 1840. He was the pioneer dermatologist of Chicago, having begun the practice of the specialty there in 1873. The condition which has become Hyde's disease was first described by Hardaway, but Hyde gave the condition its name of prurigo nodularis. Hyde died in 1910.

Frambesia tropica is known as Charlouis' disease, after M. Charlouis, whose original paper on his experiences with the disease appeared in 1881.

Friedrich Daniel von Recklinghausen, born in Germany in 1833, has two diseases named after him. The disease of the skin called Recklinghausen's disease is multiple neurofibromatosis and associated skin conditions. The other condition called Recklinghausen's disease is neoplastic arthritis deformans. Recklinghausen died in 1910.

Epidermolysis bullosa is known as Goldscheider's disease, after Alfred Goldscheider, a German, born in 1858. Tilbury Fox is accredited with having described two cases of the disease in 1879, three years before Goldscheider.

Heinrich Irenaeus Quincke, a German, described the disease which bears his name as angioneurotic edema in 1882. The disease was independently described by Bannister.

Syringomyelia is known as Morvan's disease, after Augustin Marie Morvan (born in France 1819, died 1897), whose extended memoir was published in 1883.

We come next to what is perhaps the best known eponym in dermatology based on an American. Louis Adolfus Duhring was born in the United States in 1845. He studied in this country and abroad and was early identified with dermatology. Although it is said that Bazin foreshadowed it, and that Tilbury Fox gave the first description of the disease which bears Duhring's name, it is generally conceded that the American dermatologist deserved the honor of its clear elucidation and proper grouping. Duhring wrote the first American textbook on dermatology. He reported the first case of granuloma fungoides in America, and described dermatitis hiemalis. Duhring died after an illness of two months in 1913.

Hydrocystoma, or Robinson's disease, was described by Andrew Rose Robinson, a dermatologist practicing in New York City. He was born in Canada in 1845 and died last year (1924).

THE MODERN PERIOD OF DERMATOLOGY

The master of histology and histopathology of the skin, Paul Gerson Unna, has a number of diseases named after him, of which seborrhoic dermatitis was first reported in 1887. Unna was born in 1850, the son of a physician, and entered the specialty of dermatology when thirty-four years of age. Unna's studies are far too numerous to detail. His investigations included specific staining reactions, bacteriologic studies, development of the nails, division of the corneum layer of the skin, the balloon cells, vesicle formation, micrococci of eczema, impetigo, alopecia areata, piedra nostras, soft chancre, tinea and seborrhoic dermatitis. His clinical studies included those on the Harlequin fetus, herpes progenitalis in women, lichen ruber, dermatitis herpetiformis, urticaria simplex, urticaria pigmentosa (mast cells), keratoma plantaris et palmaris, ulerythema, pemphigus vulgaris, hydroa puerorum and eczema. He initiated the study of the skin by means of diascopy. Since retiring from active practice, Unna has devoted himself to microchemical research. His monument will be "Die Histopathologie der Hautkrankheiten."[3]

Granuloma fungoides is known as Auspitz's disease for Heinrich Auspitz (1835-1886), who was a pupil of Brücke, Rokitansky, Skoda, Oppalzer and Hebra. The disease was described in 1806 by Alibert, and is also known as Alibert's disease. Kaposi described the same disease as syphilis vegetans. Auspitz studied the pathology of the skin, applied the term of parakeratosis, named acanthoma, and contributed to the study of formation of vesicles and bullae of pemphigus. Auspitz described

[3] Unna, P. G. *Op. cit.*, Berlin, 1894.

the bleeding points disclosed by removing the scale in psoriasis, which is known as Auspitz's sign.

The field of dermatologic eponyms was enriched by the work of Moriz Kaposi, born in Hungary in 1837 as Moriz Kohn. He was an associate and later the successor of his father-in-law, Hebra. There are at least three diseases known as Kaposi's disease: xeroderma pigmentosum, lichen ruber acuminatus, admitted to be identical with Devergie's pityriasis rubra pilaris, and multiple idiopathic pigmented sarcoma, the description of which is beyond all doubt Kaposi's best work. Kaposi is accredited with the original descriptions of other diseases, as impetigo herpetiformis, pemphigus vegetans, which he misnamed syphilis vegetans, lupus erythematosus disseminatus, dermatitis papillaris capillitii and lymphangioma tuberosum multiplex. Kaposi published over 150 articles and was co-author or author of a number of texts. He died in 1902.

Another of Hebra's students has an eponym, Neumann's disease, given because of Isidore Neumann's (1832–1906) contribution to pemphigus vegetans, a disease which was described in turn by Alibert, Kaposi and Neumann, and further by Unna, who regarded the disease as vegetating erythema bullosum. Neumann made special studies on the histopathology of skin diseases. He was the first to describe, although imperfectly, alopecia cicatrisata.

Heinrich Koebner has accredited to him as Koebner's disease what we know as Epidermolysis bullosa hereditaria (1886). Koebner also reported one of the first recognized cases of xanthoma.

Trichorrhexis nodosa is named Beigel's disease after Hermann Beigel (1830–1879), a German who lived in London, and gave considerable attention to diseases of the hair and its development, as well as being a general medical practitioner with especial interest in gynecology. Wilson is said to have first described the disease in 1849. Beigel described chignon fungus, caused by sclerotium Beigelanum, and a new disease, papilloma area elevatum.

Tabetic arthropathy, known as Charcot's joint, is named for Jean Martin Charcot (1825–1893), a Frenchman. He was inclined to the study of art as a young man, but lack of funds determined him to study medicine. He was especially interested in diseases of old age and chronic diseases. He was an early exponent of the use of electricity in medicine. He made studies in pathological anatomy, described gastric crises in tabes, and wrote a paper on skin diseases dependent on influence of the nervous system. Charcot was made professor of nervous diseases, a chair being especially founded for him.

The next eponym, Carrion's disease, is for one of the martyrs of medicine, Daniel A. Carrion, a medical student of Peru, who was experimentally inoculated with verruga peruana and died as the result in 1886.

Bockhart's impetigo is the name given to the follicular staphylococcic impetigo, separated from impetigo contagiosa by Max Bockhart in 1887. Bockhart asserted that the lesions were pustules from the first, *pustule d'emblée.*

The disease known as erysipiloid of Rosenbach is named after Julius Frederick Rosenbach, a German pathologist and surgeon, who investigated the disease both clinically and bacteriologically in 1887. The disease was probably first clearly described by Morrant Baker as erythema serpens.

Charles Emil Quinquaud (1841–1894) is accredited with the first report of acne decalvans, so we have Quinquaud's disease. Lailler and Robert independently described the affection a year later (1889).

Charles Mauriac (1833–1905), a noted syphilologist and genitourinary specialist, described erythema nodosum syphilitica, or Mauriac's disease.

Erythema elevatum diutinum is known, in recognition of the work of Judson Sykes Bury, as Bury's disease. It was first described by Middleton in 1887. The name was given by Crocker, although Graham Little and Stelwagen considered that the disease belonged to the domain of granuloma annulare.

The next dermatologic eponym comes to us from a neurologist. Francis Xavier Dercum, of Philadelphia (1856–), gave the original description of the disease known to us as Dercum's disease, or adiposis dolorosa.

Although the theory of psorosperms has not been sustained, the description given to keratosis follicularis by J. Darier, of Paris, (1856–), entitles him to have the disease given his name. Others are said to have described the disease independently, as Morrow (1886) and White. Darier also described pseudoxanthoma elasticum. With Roussy, Darier described the hypodermic sarcoid. Several editions of Darier's text on dermatology have appeared in French and one each in German and English. Most recently, Darier has written on the parasitic nature of dysidrosis.

Ulerythema ophryogenes, named by Unna, was described by Paul R. Taenzer (1858–), for whom it is named Taenzer's disease. Taenzer was a coworker with Unna on staining reactions, and wrote on blennorrhea and soaps.

François Henri Hallopeau, a pupil of Vulpian and Janoud, described dermatitis vegetans before the International Congress of Dermatology in 1889. The disease has since been known as Hallopeau's disease. He also described lichen planus sclerosus and acrodermatitis continu.

The futility of eponyms is again illustrated by two diseases, each known as Jacquet's disease, after Lucien Jacquet (1860–1915). Reflex alopecia connected with anomalies of teeth, and dermatitis simples infantiles are the two diseases. Jacquet initiated the dermatologic service at Hôpitaux St. Antoine, and under his direction it became second only to the St. Louis at Paris. Jacquet began the antialcohol campaign in France. He was joint editor of the *Précis élémentaire de dermatologie* and of the *Annales de dermatologie et syphiligraphie.*

Tuberculin had been introduced the year that Sebastiano Giovannini reported the rare nodular disease of the hair known as Giovannini's disease.

The same year (1891), Thomas Dixon Savill published a monograph on dermatitis exfoliativa epidemica, or Savill's disease. Savill was a distinguished student in England and at Paris, Vienna and Hamburg. He was an executive of marked ability on many Poor Law Commissions. Savill, born in 1856, died at Algiers in 1910 following a fracture at the base of the skull, caused by a fall from a horse.

Often, as we have intimated before, the name of a man is associated with a disease which he did not discover but only gave a name to, as is the case of Barthélemy's disease, or acnitis. P. Toussaint Barthélemy wrote a paper on acnitis, which was first described fifteen years earlier by Tilbury Fox as disseminated follicular lupus. Barthélemy reported the swelling of neighboring glands in herpes zoster.

Lichen chronicus simplex of Vidal is named after Emile Vidal (1825–1893), who was an exceptional student of dermatology accredited with numerous studies, including bacterial investigation of pityriasis rosea, eczema of adjoining surfaces, sections of urticarial wheals, and the first description of keratosis blennorrhagica (1893).

A name to conjure with in our specialty is that of Jonathan Hutchinson, who was born in England in 1828 and who died in 1913. His interests in medicine were widely diversified. An ophthalmic surgeon, a professor of clinical surgery, a dermatologist and syphilologist, he interpreted medicine and surgery on a broad basis. He described the Hutchinson triad in congenital syphilis. He described the first cases of infective angioma, or infective nevus of Hutchinson. He proposed the fish-eating theory of the causation of leprosy, and was the first to describe varicella gangrenosa. He independently described dysidrosis, later ascribed to Tilbury Fox. Hutchinson, who was sole contributor to the *Archives of Surgery* which he published, also described Hillard's lupus, or lupus marginatus, and Mortimer's malady, a type of sarcoma. The names were chosen from the names of the patients involved. We also know the notched upper incisors of congenital syphilitics as Hutchinson's teeth, and the hydroa vacciniforme of Bazin was called Hutchinson's disease, despite the name he gave it of recurrent summer eruption. Hutchinson was knighted in recognition of his work.

Lupus vulgaris erythematoides is known as Leloir's disease, after Henri Camille Leloir (1855–1896), of Lille and Paris. The representation of the disease which bears his name was made in 1891. Leloir had a special interest in tuberculosis, leprosy and skin affections dependent on nerve injuries.

Erythromelalgia is known as Gerhardt's disease, after Carl Adolph Christian Gerhardt, a German pediatrician (1833–1902), whose paper on the disease with which his name is linked was published in 1892.

Henry Ambrose Grundy Brooke (1854–1919) has two diseases named after him. Epithelioma adenoides cysticum was described in 1892, and keratosis follicularis contagiosa in the same year. Brooke claimed as previous examples of the latter rare disease, acne sebacee cornee (Cazenave), acne cornee (Leloir and Viscal), ichthyosis follicularis (Lesser) and keratosis follicularis (Morrow). Brooke wrote on many diseases of the skin and had planned a book on dermatology, but was disabled by hemiplegia in 1906.

Congenital edema of the legs is known as Milroy's disease, after Prof. William F. Milroy, of Omaha, Nebraska.

The parasitic affection, Nocardiosis, which is somewhat like actinomycosis, has taken its name practically intact from Edmond Isidore Nocard (1850–1903). Nocard was one of the collaborators of Pasteur. He was professor of contagious diseases among animals, a member of the Legion of Honor, and an officer in 1892.

Pollitzer's disease, or hydradenitis destruens suppurativa, is named after Sigmund Pollitzer, an American dermatologist, who was the first to seriously study under the master Unna. Pollitzer has contributed also parakeratosis variegata, accredited to Unna, Santi and Pollitzer. Acanthosis nigricans was described by Pollitzer, as well as by Janowsky.[4] Pollitzer has become identified with the study of xanthoma, and is known for his proposal of a variation of Scholtz's intensive method of treating syphilitics. He edited the American edition of Darier's textbook on dermatology.

Vittorio Mibelli also has at least two diseases named after him, Mibelli's disease. These are angiokeratoma, which Mibelli reported in 1889, although the first description was by Mr. Cottle in 1877, and porkeratosis, described by Mibelli in 1893.

Angioneurotic edema is known as Bannister's disease, after H. M. Bannister (1840–1920), who was the first to describe the condition in 1894. Bannister was graduated from the National Medical School, participated in the geological survey of the territories, including Alaska, and was a member of the editorial staff of the *Journal of the American Medical Association.*

Hodara's disease, or Trichorrhexis nodosa, noted among the women of Constantinople, is named after Menahem Hodara, who described the bacillus multiformis of trichorrhexis.

Achille Breda reported the demonstration of a bacillus in frambesia Braziliana, or boubas, in 1895, and the disease has become known as Breda's disease.

Nil Fiodorovich Filatoff, the Russian pediatrician, who has often been acclaimed as the first to describe the spots of the mouth to which the name of Koplik's spots has become attached, described the so-called fourth exanthem, known as Filatoff's disease, and also as Dukes' disease.

John Addison Fordyce, professor of dermatology and syphilology at Columbia University Medical School, described the peculiar affection of the mucous membrane of the lips and oral cavity in 1896, which has become known as Fordyce's disease.

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[4] International Atlas of Rare Skin Diseases, 1892.

Fordyce was codescriber with George Henry Fox of the disease known as Fox-Fordyce disease. It is not necessary at this time to review the investigations of Fordyce in dermatology and syphilis, for they are already well known.

Blastomycosis is known as Gilchrist's disease, after Thomas Casper Gilchrist, of Johns Hopkins University. The name Oidium Gilchristi has also been given to one form of the organism causing the disease. Gilchrist has numerous dermatobacterial studies to his credit. Born in England in 1862, Gilchrist came to this country in 1890.

Joseph Grindon of St. Louis described a peculiar affection of the hair follicle which he named ecbolic folliculitis, but which has become known as Grindon's disease.

Schenck's disease, or sporotrichosis, is named after Benjamin R. Schenck, who reported on the condition.[5]

Some other American dermatologists of this period have described diseases which have later been named after them. James Clarke White (1833–1916) was the pioneer dermatologist of Boston and the first professor of dermatology in the United States. White and Darier independently described the affection which has been known by each of their names, but predominantly by that of Darier. White made many advances in the study and teaching of dermatology and was the author of numerous monographs, of which that on dermatitis venenata remains a classic.

Jay Frank Schamberg first described the disease to which his name has been given in 1901. Schamberg has become identified with research studies in psoriasis, and with independent activities in the therapeutic endeavors for the upkeep of the supply of arsphenamin during and after the World War. Schamberg also described grain itch, a study of a new disease in this country.

Martin Engman described the disease, infectious eczematoid dermatitis, known as Engman's disease, in 1902. Engman has a rich bibliography showing much work done in dermatology and syphilis.

The disease which bears the names of the collaborators, Fox-Fordyce disease, indicates George Henry Fox, the American dermatologist of that name, one of the earliest specialists in this country. Dr. Fox has held many honors and has done much for the speciality, as well as adding a distinguished member to its ranks in his son, Howard Fox, who, if we must believe the story, began the study of dermatology when four years of age.

John Templeton Bowen, of Boston, described the new precancerous dermatosis with which his name has become associated. Darier has confirmed the peculiarity and rarity of the affection. Bowen has a long series of papers to his credit.

A few other names must be mentioned before we close. Majocchi's disease is named after the Italian dermatologist, who first described the disease in 1896. He also was the first to describe actinomycosis occurring in the skin.

Caesar P. M. Boeck (1845–1917) reported on *multipelt benignt bud sarcoid* in 1899, known as Boeck's sarcoid. Caesar Boeck described the exanthems of tuberculosis, acne necrotica, and published papers on the nature of lupus erythematosus.

Meige's disease is the name given to Milroy's disease, or congenital edema elephantiasis of the lower limbs. Henri Meige gave a description of the condition in 1899.

Anetoderma erythematosum is known as Jadassohn's disease, after Josef Jadassohn, a pupil of Neisser, and himself a teacher of high reputation. Jadassohn has made numerous original investigations, including studies on nevi, tuberculosis of the skin, pityriasis rubra, verruca, favus and drug eruptions. He also was the first to describe Cutis verticis gyrata and granuloma rubra nasi.

Erythromelia is known as Pick's disease after Filipp Joseph Pick, first full-time professor of dermatology in Austria. He was an early experimenter, proved by inoculation the identity of mouse and human favus, demonstrated the contagious nature of molluscum contagiosum, compelled the recognition of the tuberculous nature of lupus vulgaris, and independently described Leptothrix. Buschwald (1883) is accredited with the first description of erythromelia.

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[5] *Johns Hopkins Hosp. Bull.*, Balt., 1898.

White spot disease is known as Westberg's disease, after Friedrich Westberg.

Parakeratosis psoriasiformis, or parapsoriasis, is known as Brocq's disease, after Anne Jean Louis Brocq. Brocq described pseudopelade, lupoid sycosis, pruritus with lichenification and *acne excoriée des jeunes-filles.*

Lichen nitidus is known as Pinkus' disease, after Felix Pinkus, who gave the original contribution on the disease. Pinkus has written numerous articles on dermatologic subjects and syphilis.

SU-WEN, THE BASIS OF CHINESE MEDICINE*

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MORE than a year ago my dear friend, Prof. A. E. Haydon of the University of Chicago, called my attention to a book which was as unknown to me as it doubtless is to most of my medical and scientific readers. The work in question is entitled "Histoire des Croyances religieuses et des opinions philosophique en Chine depuis l'origine, jusqu' à nos jours," by L. Wieger, S.J., published in 1917.[1] Here is found a summary of a previously untranslated work, the "Su-wen," by an unknown author upon which there are extant numerous Chinese commentaries.

My translation, for which I received some valuable suggestions from Miss E. F. Dexter of this University, was subsequently submitted to M. Wieger, who has most graciously consented to its publication and has explained to me several obscure references.

The Translation

I attribute to this period (the first of the Han dynasty) the analysis of the *Su-wen*, Simple Questions, because the style of this work does not at all permit us to place earlier the edition which has come to us, and because it certainly existed under this form at this epoch. But its contents are older. It sums up the experimental, physiological knowledge of all the centuries which preceded, for it systematizes it in one chapter, the nineteenth, which is of the greatest interest for the history of Chinese doctrines. This chapter is certainly later than Lao-tsze, beginning of the fifth century; but I estimate that its outline was prior to the end of the fourth century. For the system of five agents, upon which it rests its theories, is still the system of reciprocal production of agents by one another, not the system of the destruction of agents by one another introduced by Tseon-yen in the fourth century.

The setting of the *Su-wen* is rather original. The emperor Hoangti puts very well formulated questions to the savants of his retinue, K'i-pai and others, which they elucidate. It is pure fiction, of course, but gives the book more clearness and a certain vivacity. The following is the résumé of the system of which the relationship with the Taoist philosophy is apparent.

All that is arises from a primordial Being without form or figure, invisible and impalpable. The Being when in this condition is called by the unknown editor of the *Su-wen*, the Mystery. By its infusion into the first matter, *K'i*, it produces all the beings. All hold from it their vital spirit, shen, ling, shen-ling or chen-ling. Besides this vital spirit, man, who is made of the quintessence of matter, holds of the Mystery his intelligence, *chih*. Hence the aphorisms: "All being is made of matter containing spirit" and "The condensation of the matter and its animation by spirit, makes the being." The spirit, that is the vital spirit, is the participation of each being in the soul of the world and is not a separate soul.

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* Read before the Seminar in Medical History of the University of Wisconsin.

[1] The following translation is made from this edition, pp. 313–317. A second edition (1922) of this work has now appeared, but the chapter in question has been changed only in respect to its pagination, which is now 305–309.

The median space, between the heaven above and the earth below, is the theater of communication of the being, by the primordial Being, to the inferior beings . . . The *Su-wen* calls this median space The Great Void. It is the hollow of the bellows[2] of *Lao-tsze*.

In this median space, turn two superposed wheels, one above the other, in the opposite direction. The nine principal constellations and the seven celestial bodies (sun, moon and five planets) are the metronome which regulates this double gyration.

The upper wheel, turning to the left, is that of the celestial influence *yin-yang*. These two alternative modalities, activity and passivity, light and darkness, heat and cold, expansion and contraction, masculinity and femininity, rigidity and flexibility, we have long recognized. But in the *Su-wen* each is subdivided into three parts. This subdivision is to play henceforth an immense rôle in Chinese speculations. We show here the famous graphic scheme of this gyration.[3] The two points of opposite color signify that each modality contains within itself the germ of its opposite, which will succeed to it; but this we shall pass over. The two tears, swollen at the head, decreasing at the middle, drawn out at the tail, symbolize the cycle of the two modalities. One sees that to the head of each corresponds the tail of the other and that, the two decreasing, median parts are intermediary. The three parts of each modality are designated, in the *Su-wen*, by the terms apogee, diminution, termination; and consequently the treatise speaks of the three *yin* and of the three *yang*.

Now the upper, celestial wheel has six sectors, the *yin*-agopee, the *yin*-decreasing, the *yin*-disappearing; the *yang*-apogee, the *yang*-decreasing, and the *yang*-disappearing. On passing by the inferior lower wheel each of these sectors influences it, according to its quality and its degree; to the sectors *yang* of the wheel correspond an effect, more or less great, of life, of activity, of power; to the sectors *yin* correspond an effect, more or less strong, of depression, of decadence, of death.

The inferior, terrestrial wheel, turning to the right, has five sectors corresponding to the five natural agents disposed in the order of reciprocal production; vegetable substance, fire, earth, metallic substance, water. It presents successively these five sectors to the influence of the six sectors of the celestial wheel. The cycle is thirty years. That is to say that, every thirty years, the respective position of the two wheels has returned to the point of departure and the movement recommences.

The two wheels are further divided each into 360 degrees, corresponding to the 360 days of the year (*sic*), and the art of calculating in advance what degree of the superior wheel shall influence, on a given day, what degree of the inferior wheel, constitutes the transcendental science of numbers. There are tables subdivided into hours. These are the tables which have served for twenty centuries to calculate in China the destinies of men, the chances of success of enterprises, and so forth.

See there, says the *Su-wen*, the transcendental machine; reminiscence of the method of cosmic weaving of Lao-tze; the mechanism from which everything emerges and into which everything returns.

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[2] M. Wieger's letter states: "Of the (cosmic) bellows. Lao-tze compares the cosmos to a smith's bellows, two boards and a bag of leather. Heaven and Earth are the two acting boards. The hollow bag, between them, breathes *life*, producing all livings."

[3] See appendix I, Celestial Wheel.

After this theory of the universal macrocosm the editor of the *Su-wen* goes on to explain to us the human microcosm. I shall permit him to speak of this at length, because these theories have been but little or not at all modified up to the present and are still the foundations of Chinese physiology and psychology.

In its inactive state the universal principle is imperceptible. In its active state it becomes perceptible through its action. It is in man the cause of the condensation of his body, his vital spirit. When the vital spirit leaves the body, the latter will be dissipated.

The wheel of the three *yin* and of the three *yang* act upon the human microcosm as upon the universal macrocosm. Man presents to its action his five viscera through which he participates in the five natural, terrestrial agents.

The *heart*, which presides over the formation of the blood, over the circulation, over the animal heat, partakes of the agent fire. It responds to the influx of heat, to the orientation south, to the color red. That which has a bitter taste nourishes it. Its emanation is affection. Too much bitterness injures the heart, too much affection exhausts it. The heart is the seat of the vital spirit, of the prince of the organism. From it comes the impalpable vitality and consequently all activity.

The *liver*, which presides over the well-being of the tendons, is bilobed like the dicotyledinous grains; it contains the vegetable agent. It responds to the influx wind, to the orientation east, to the color blue green. That which has an acid (*aigre*) taste nourishes it. Its emanation is repulsion. Too much acidity injures the liver; exaggerated antipathy exhausts it. The liver is the seat of the aerial soul, which directs the internal distribution of the breath.

The *lungs*, a double bellows with twenty-four tubes, presides over the maintenance of the skin and of the hair. They partake of the agent metal. They respond to the influx dryness, to the orientation west, to the color white. That which has a sharp (*acre*) taste nourishes them. Their emanation is gravity. Too much sharpness injures the lungs. Pushed as far as melancholy, the gravity exhausts them. The lungs are the seat of the spermatic soul, which directs the interior distribution of this absorbed material, which, uniting with the breath emanating from the aerial soul (liver), is assimilated and repairs in proportion all the organism.

The *spleen*, which presides over the maintenance of the flesh is suspended as by a pedicle to the middle of the vertebral column; it partakes of the element earth. It responds to the influx humidity, to the orientation center, to the color yellow. That which has a sweet taste nourishes it. Its emanation is reflection. Too much sugar injures it, too much reflection exhausts it. The spleen is the seat of intelligence and of the will. It characterizes the temperament.

The *kidney*, double organ, presides over the formation of the bones and of their marrow and especially over the maintenance of the brain which is the marrow of the cranium. It partakes of the agent water. It responds to the influx cold, to the orientation north, to the color black. That which has a salty taste nourishes it. Its emanation is prudence. Too much salt damages the kidney. Pushed to irresolution and scrupulousness, prudence exhausts it. The kidney is the seat of the fecundating sperm. From it comes all procreation.

By means of tables of 360 degrees, one calculates the action of the superior, celestial wheel upon the inferior wheel of the five agents, represented in man by his five viscera. The exact date and the numbers of his birth being given one can calculate from them the ups and downs of his entire life, and the end of this life. What words are these of the artists who make these calculations!

To these principles presented at length in the *Su-wen*, are added practical treatises, dietetic and therapeutic. All disease is considered to come from the disorder of the function of a viscus. To determine the sick viscus, a single means is employed, the examination of the pulse. The principal characteristics of the pulse, slowness, rapidity, force, weakness and others, are described. *A priori*, always in view of features of correspondence with the five natural agents, each variety of pulse is thought to indicate that a special organ is affected. There could be nothing less scientific, more fantastic, more empty. Not even a trace of empiricism, of rudimentary experiment. Nothing but the six celestial influences, the five terrestrial agents and the rotation of the sectors. Be it said in passing, that it is for this reason that medicine is placed, in the classification of Chinese sciences, side by side with divination;[4] the two arts being equally based upon conjecture and calculation. As soon as the sick organ has been found, there follow at once the dietetic consequences. If the heart is affected, it is because the patient has abused hot and bitter foods; it is necessary to deprive him of these from then on. If the kidney is affected, then probably he has used cold and salty foods to excess; he ought to abstain from them henceforth and so forth. These correspondences have been sufficiently indicated above. Hence the scrupulous care of each Chinaman whose health is not good, in the choice of his food, care which degenerates into hypochondriacal mania in a number of citizens of this nation. If only their dietetic rules were worth something, but no! The rotation of the six and of the five, as the formula says. One does not get away from that.

Finally let us speak of therapeutics. Here I call attention to an important fact. Before the Christian era the Chinese did not recognize and did not use medicaments properly speaking. That which tradition reports, that the legendary emperor, Shen-nung, "tasted the hundred herbs," ought to be understood as referring to vegetables susceptible of being employed as food, which were determined with more care when the agricultural life succeeded the nomadic. They knew some violent poisons, arsenic and nux vomica for example; and they made use of these to produce, in cases judged to be desperate, not a curative result, measured and graduated, but a terrible shock, a heroic reaction, which they believed could sometimes restore to equilibrium the distracted organism. The *Su-wen* makes allusion to this practice. Now when the Chinese have many drugs, the ancient, aforesaid system is still employed. I have seen a typical case of it. A girl was afflicted with melancholy mania. The local physicians had not been able to cure her. A traveling physician passes. The relatives of the girl ask him for a consultation. He says: this disease is inveterate; it has struck deep roots; there is only one chance of dislodging it, that is to say *the attack of poison*. I have the drug desired but I do not at all guarantee the result. It is for you to decide. In two hours your daughter will be cured or dead. The relatives asked that the attempt be made. Two hours later the girl was dead.

So then in ancient times there were no medicaments properly so called, but a unique proceeding, believed to heal all ills, comparable to the theories presented above, namely, the famous Chinese acupuncture. Antiquity knows only this. The invention probably dates from primitivity, for the needles were for a long time of flint. Here is the theory of acupuncture . . . Every malady is a visceral disorder. A viscus either does not secrete its emanation, or does not secrete enough of it or retains it instead of circulating it. In a word paralysis of the organ, bad work . . . Now, what does one do to the ox when he draws badly? One gives him a blow with a goad. The Chinese acupuncture is nothing else. One pricks the recalcitrant organ. The *Su-wen* gives the instructions for these *direct* pricks but it also indicates rather well the inconveniences and the dangers of the method, if one uses the needle too violently, if one pricks ever so little to the side, and so forth. The direct prick should be reserved as the attack by poison for desperate cases, when there is nothing to lose. In ordinary cases it is better to practice *indirect* acupuncture.

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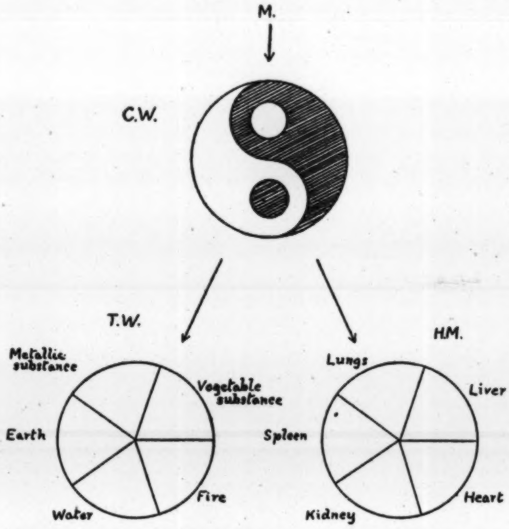
[4] When Shih-huang-ti of the Ch'in dynasty (immediate predecessors of Han) burned the books of the reactionary literati, he spared those on divination and medicine.

With an arbitrariness still worse than that which presided at the interpretation of the varieties of the pulse, the Chinese artists divide the cutaneous surface of the entire body into a number of districts, each of which has a special name and is believed to correspond, it is not stated why, to a definite viscus. One pricks such a part to put such a viscus in operation, according to the chart of the human body. For example the pulse having denounced the heart as the author of the disorder, one pricks a certain region of the back, which corresponds to the heart, according to the theory. The heart frisks with pain, recovers itself and sets to work to distribute as it ought, through all the body, the blood and the vital spirit. If its functioning still leaves something to be desired one pricks the place again, and so forth. A simple system, as is seen, and above all inexpensive. All the ancients were thus pricked and healed by the power of nature, the imagination satisfied by the blows of the needle received.

I terminate this chapter with one observation. The *Su-wen* recognizes the circulation of the blood. Probably it was known to the Chinese very much earlier. But it is not right for us to say that they discovered it twenty centuries before W. Harvey. For their knowledge of the circulation of the blood in the human microcosm was intuitive, not experimental, conjectured at the suggestion of the circulation of the vital principle in the universal macrocosm, in which they believed. They divined the fact but they never verified it. If they knew that the heart pressed the blood into the arteries, nevertheless the capillary network, the venous channels for return, the action of the valves, was all unknown to them. During more than twenty centuries the *how* of the divined circulation did not even present itself to their minds. The *yin-yang* circled about, the five agents did the same, the blood the same. That was all . . . Too much reflection exhausts the spleen, as we have seen.

APPENDIX I

Attempted diagrammatic representation of the essentials of the macrocosm and microcosm as described in the Su-wen.



DIAGRAMMATIC REPRESENTATION OF THE ESSENTIALS OF THE MACROCOSM AND MICROCOSM AS DESCRIBED IN THE SU-WEN.

M.: the metronome, composed of the nine constellations and the seven celestial bodies, which regulates the turning of the wheels.

C. W.: the celestial wheel, which, standing above and rotating to the left, passes T. W. and H. M. It is composed of two modalities, *yin* (activity, light, heat, expansion, masculinity, rigidity), and *yang* (passivity, darkness, cold, contraction, femininity, flexibility) and its circumference is divided into 360 degrees. Each modality is divided into three parts, apogee, decreasing, disappearing.

T. W.: the terrestrial or macrocosmic wheel, rotating below, is divided into five sectors corresponding to the five natural agents: fire, vegetable substance, metallic substance, earth and water: and its circumference is divided into 360 degrees;

H. M.: the human microcosm with its five organs. heart, liver, lungs, spleen and kidney; corresponding to the five natural agents and like them affected by the nearest part of the celestial wheel.

Through fanciful analogies the pulse informs us in sickness of the organ affected. It is then, apparently, possible to counteract the effects upon the microcosm, of the celestial wheel of the three *yin* and the three *yang*, by acupuncture (direct or indirect) or the attack of poison.

That part of the diagram which represents the celestial wheel is from Wieger: the rest has been added by the author.

APPENDIX II

Tabular view of the functions and characteristics of the five bodily organs according to the Su-wen.[5]

	Heart	Liver	Lungs	Spleen	Kidney
Presides over	Blood and its movement; animal heat	The tendons	Skin and hair	The flesh	Bones and marrow
Partakes of the agent	Fire	Vegetable substance	Metals	Earth	Water
Responds to influx of	Heat	Wind	Dryness	Humidity	Cold
Orientation	South	East	West	Center	North
Color	Red	Blue green	White	Yellow	Black
Nourished or injured by	Bitter	Sour	Sharp	Sweet	Salty substance
Emanation is	Affection	Repulsion	Gravity	Intelligence and will	Fecundating sperm
Seat of	Vital spirit	Aerial soul	Spermatic soul	Characterizes the temperament	Procreation
	Produces activity	Distributes breath			

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[5] Arranged by P. M. D.

WILLIAM CADOGAN AND HIS ESSAY ON GOUT

By JOHN RUHRÄH, M.D.

BALTIMORE, MD.

To truly estimate Cadogan, and he looms large, one must bear in mind that he graced a period when, as a rule, "the mind like the beard had a formal cut." The eighteenth century was a formal age. Men bowed and scraped punctiliously over their snuff boxes; the philosophers droned tediously; even the music of the period was precise. Small wonder that the medicine of the century followed suit. The medical London of those days was replete with interest; the mere mention of a few names suffices to give it coloring. At that time John Brown was flourishing. A protégé of Cullen, he announced a theory known as the Brunonian, a theory actually taken seriously for a quarter of a century and which comes down to us even until today in the textbook use of the words *sthenic* and *asthenic*. Smellie was doing obstetrics, the Hunters and Percival Pott, surgery, and medicine was represented by such men as Cullen, the older Heberden and John Fothergill, when Cadogan decided to give up his work in Bristol and move up to London to make a place and a name for himself.

Of this old worthy we know but little: a treatise on gout, an essay on the nursing and nourishment of young children, and his literary work is nearly compassed. But whilst he threw few stones into the pond, he created a great splash; he used large stones and he flung with force.

The fact that medical history was largely neglected by the English makes it difficult to supply interesting biographical facts about many of her great physicians and surgeons. In many cases one has to read between the lines of his works to find out anything about the man. If John Mayow, one of England's geniuses, remained and still remains practically unknown, it is little wonder that William Cadogan should fare likewise. There may be a wealth of biographical material about the latter, but if so, it is buried somewhere in an inaccessible place. What we do know is that he was born in 1711, lived nearly through the century, dying in 1797, and was buried at Fulham, where he had a villa. His youth was spent in Oxford, where he was graduated B.A. from Oriel College in 1731. Electing to study medicine, he visited the Continent and received his doctor's degree at Leyden in 1737. Perhaps he was a student of the great Albinus, famous for his anatomic illustrations, professor of anatomy and surgery in Leyden at that time. If so, Cadogan must have come to know of the works of the great masters Vesalius, Fabricius and Eustachius. Or perhaps he studied anatomy with Peter Camper, who scorned anatomic illustrations and who maintained stoutly that anatomy must be considered as architecture and not in surface drawings.

But whatever his adventures on the Continent, we know they were soon over. After a period of service in the army, Cadogan settled in Bristol, where he resided in 1752, in which year he was made a Fellow of the Royal Society. A little later he removed to London. He was not long in establishing himself and in 1754 he was made physician to the Foundling Hospital. The following June, Oxford made him M.A., M.B. and M.D., and in 1758 the College of Physicians did him the honor of electing him to membership. Four times did he serve as censor and twice, in 1764 and 1792, delivered the Harveian oration.

Cadogan lived in George's Street, Cavendish Square, under the shadow of St. George's Church, famous as a place of fashionable weddings. Mr. Roosevelt was married there in 1886, George Eliot in 1880, and more interesting still, Sir William Hamilton to Emma Hart in 1791. If you do not know the story of Lady Emma you still have something to live for. But all this is by the way. Cadogan's portrait by R. E. Pine adorns the walls of the College of Physicians, and notes about him are to be found in Monk's "Roll of the College of Physicians," Nichol's "Anecdotes," and *The Gentleman's Magazine* for 1797.

If one had time a lot of interesting references about Cadogan could be gleaned from the literature of the period. For example, Hannah More, writing from Garrick's villa at Hampton in 1777, said:

"Dr. Cadogan and his agreeable daughter have spent a day and a night here. The Doctor gave me some lectures on Anatomy and assures me that I am now as well acquainted with secretion, concoction, digestion and assimilation as many a wise-looking man in a great big wig."

But far more interesting is a line in one of Garrick's letters:[1]

"I have been really blighted with ye Spring and till the Warm Weather came to make me bud a little with ye trees, I was resolved to send no cold blooded prosing to Thee, Merry Wag of ten thousand! I am tight in my Limbs, better in my head, and my belly is as big as Ever—I cannot quit Peck and Booze.—What's Life without sack and sugar! My lips were made to be lick'd, and if the Devil appears to me in the Shape of Turbot and Claret, my crutches are forgot, and I laugh and Eat . . . A Dr. Cadogan has written a pamphlet lately upon ye Gout, it is much admired and has certainly It's merit—I was frightened with it for a Week; but as Sin will outpull repentance when there are passions and palates, I have postponed the Dr.'s Regimen till my wife and I are tete a tete, and so make ye mortification as compleat as her father Confessor would prescribe to her in Lent."

His principal works are on gout and children. The first is entitled "A Dissertation on the Gout, and all Chronic Diseases, jointly considered, as proceeding from the same causes, what those causes are; and a rational Method of Cure Proposed. Addressed to all Invalids. Quod petris in te est. London, 1771." This was widely read and went through ten editions in two years.

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[1] Unpublished Correspondence of David Garrick, edited by George P. Baker; Boston, 1907.

The other was "An Essay upon Nursing, and the Management of Children, London, 1750," of which nine editions appeared in twenty years.

The little book on gout, which sold for one shilling and sixpence, starts off in the preface with a quotation from St. Evremond: "To enjoy good health is better than to command the world." He continues, in a style that is about the easiest reading one ever finds in a medical book, to note that "health, like time, becomes valuable only when it is lost," and that it is strange that so many "should pursue, with the same vain hope, after repeated disappointments, the thousand and ten thousand idle arts and tricks of medication and quackery; never once lifting up their eyes to Nature, or consulting her book, open as it lies for the perusal, conviction and benefit of all."

Cadogan appreciated fully the good effects of massage and advocates its use strongly. It seems strange that in spite of its use by the ancients, in spite of Cadogan and other clear-headed physicians of his day, in spite of Playfair and Weir Mitchell, massage and passive exercise should be left so largely to laymen, charlatans and quacks. The neglect of these two curative procedures by the medical profession is largely responsible for the growth of two modern cults, osteopathy and chiropractic.

Space prevents an examination of this interesting essay; suffice it to say that he regarded gout as curable, but not by medical means. The causes he sets down are indolence, intemperance and peace of mind. All this is fully explained with succint comment. It seems a little strange (unless one pauses) to read: "I recommend it to all men to wash their feet every day." But we must not tarry here. The book set London agog. It was followed by a number of other publications. An anonymous "Candid Enquiry into the Merits of Dr. Cadogan's Dissertation on the Gout" is a readable, satiric article, thrice as long as the original.

One comment in this tract may throw some light on why Cadogan's ideas provoked so much discussion, as well as on the life of the time and the wit of the author.

> If I am not mistaken the laudable qualities, which are at present the most in fashion, are keeping mistresses, debauching friends' wives, cheating at gaming tables and at Newmarket, indulging in every excess and refinement in eating and drinking, and speaking in Parliament.

William Falconer of Bath, William Carter, Mr. Daniel Smith and others published tracts about Cadogan's dissertation, but one gathers that they did him more good than harm.

The last part of his preface contains a sort of *confessio medici:*

> I think a real Physician the most liberal of characters upon the earth; by which I do not mean every Doctor that goes about taking guineas, but him who will neither flatter the great nor deceive the ignorant, and who would prefer the satisfaction of making one invalid a healthy man, to the wealth of Radcliff or the vogue of Ward. But there is an evil spirit of quackery gone forth, that has possessed all orders of men among us. I would lay it, if I could, together with every demon of superstition and error, and restore the world to Truth and Nature.

To which the author of a "Candid Enquiry" replies:

> For the rational attempt, unrevealed and untried before, is perfectly accomplished by Dr. Cadogan. Burn the books of Hippocrates, Galen, Celsus, Sydenham, Musgrave, Boerhaave, Hoffman, and all other rubbish of Greek, Latin, Arabic and modern physicians. And then, let every regular, semiregular and irregular practitioner, whether he be mounted in a chariot, on a stage or walk on foot; whether he advertise his medicines or himself, be hanged. Yes, my good readers, hang Wintringham, hang Heberden, hang Adington; but for *honest Will. Cadogan, real Will. Cadogan, liberal Will. Cadogan, rational Will. Cadogan*, and therefore the more *rational*, being as he is, *new Will. Cadogan*, hang not him; save honest Will. and hang all the rest.

Far more interesting is the clever poem published anonymously, entitled, "The Doctor Dissected: or Willy Cadogan in the Kitchen. Addressed to all Invalids, and Readers of a late Dissertation on the Gout, etc. etc. etc. By a Lady. 'The best of all Doctors is sweet Willy O.'" The lady in question was a Mrs. Ireland. This poem is really a very good review of Cadogan's "Dissertation" and is reprinted in this article after the "Dissertation on Gout." No further comment is needed. Both speak for themselves.

A
DISSERTATION
ON THE
GOUT
AND ALL
CHRONIC DISEASES,
JOINTLY CONSIDERED,
As proceeding from the same Causes;
What those Causes are;
AND
A rational and natural METHOD of Cure proposed.
Addressed to all INVALIDS
By WILLIAM CADOGAN.
FELLOW OF THE COLLEGE OF PHYSICIANS.
THE TENTH EDITION
Quod petis in te est.
LONDON, Printed:
BOSTON: Re-printed for HENRY KNOX, in Cornhill, MDCCLXXII.

PREFACE

To enjoy good health is better than to command the world, says a celebrated practical philosopher,[2] who understood the use and value of life and health better than most men; for in exile, with a small income, and no very good constitution he cultivated an uncommon length of days into a rational series of pleasures; and what is much more, an uninterrupted course of happiness. But, as far as I can find, he was almost the only man that did so. The generality of men seem to me not to bestow a tho't upon either, till it be too late to reap the benefit of their conviction; so that health, like time, becomes valuable only when it is lost; and we can no longer think of it but with retrospect and regret.

That men in good health, the young and gay in their career, should be negligent of it, or abuse it, refusing to stop and listen to, or take warning from others, is no great wonder; but it is very surprizing that mankind in general should be mistaken and misled forever in the same perpetual round of fruitless attempts to repair and establish it; not the ignorant vulgar only, but the sensible, the judicious, men of parts, and knowledge in other things, in this case equally blind, should pursue, with the same vain hope, after repeated disappointments, the thousand and ten thousand idle arts and tricks of medication and quackery; never once lifting their eyes up to Nature, or consulting her book, open as it lies for the perusal, conviction and benefit of all.

Some industrious men, fancying that whatever is valuable must lie deep, have, with the greatest alacrity in sinking, plunged into the immense abyss of ancient, Greek, Roman and Arabic learning, in hopes to find good precepts of health, and sure remedy for disease. But after all their pioneering into endless heaps of rubbish, what have they found at last but this? That in natural philosophy some of the ancients were very ingenious in guessing wrong; for guess was all they did; they never studied Nature at all, they made no experiments, and therefore knew nothing of her; but either blindly followed or combated each others opinions: school against school, and sect against sect, waged equal and endless war. In the art of physic it was impossible for them to know much; for before our immortal HARVEY's discovery of the circulation, there could be no physiology at all, nor any knowledge either of the internal structure or action of any part of the body. Before the justly celebrated ASELLIUS and PEQUET there could be no idea of nourishment; nor was it known how our food passed into the blood, whether it went there or not, or what became of it. But now, since these lights have shone in upon us, all the ancient conjectures, reasonings, and systems, must vanish like morning clouds before the sun. Besides all this, there are some of our diseases which the ancients had not, nor have we all theirs: some few, and very few useful, discoveries they made in medicine, which have descended to us, and with some late tricks in chemistry are the chief foundation of modern quackery. Thus have men of deep learning, if the knowledge of ancient errors can be called so, sunk far out of sight of truth, which in things of general use and necessity, particularly the health of mankind, lies most commonly upon the surface.

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[2] St. Evremond.

It has been of great disservice, as well as discredit to the art of Physic, and every fair practiser of it, that men's expectations have been raised by the ignorant and presuming, or the dishonest and artful, to hope for too much from it, more than it ever did or can do. Respite and relief may be had in most chronic cases; remedy, I fear but in very few, if it be expected from art alone. But a skilful and honest Physician (unless he be sent for too late and dismissed too soon, which is generally the case) will employ those intervals of relief to induce the powers of life and nature to act for themselves, and insensibly withdrawing all his medicines, and watching carefully over his patient's whole conduct, leave him confirmed, from conviction of their necessity, in such good and salutary habits, as cannot fail to establish his health for life.

Possibly, if men were better informed of the real causes of their diseases, they might be less unreasonable in their demands, and learn to be contented with present relief; submitting with patience to that plan of life which alone can lead them to, and preserve them in, permanent health. With this view of engaging men's attention to their own happiness, and undeceiving them in their vain and groundless hopes of remedy, and diverting them from the delusions of art to the realities of nature, I have ventured to publish the following Dissertation; which I must beg the reader to consider as, what it really is, a hasty extract of a much larger work, intended to take in the whole circle of Chronic Diseases, here comprehended only in their representative the Gout. If what I have said may seem to want farther illustration, or more demonstrative proof, he will look upon it only as a sketch to furnish hints for his own thoughts and reflections, either to improve mine or reject them entirely, as may seem good unto him. If he thinks, from what I have said here, or in the *brochure* itself, that I mean to impeach the practice of physic in general; I say, that it is not my intention. I would decry all quacks, from Æsculapius to the present, either as ignorant fools, or self-convicted impostors, advertising daily lies; whether mounted on stages, or riding in chariots. But the art of physic fairly and honestly practised I honour as the first of professions, comprehending the most useful, the most extensive and universal knowledge of nature, I think a real Physician the most liberal of characters upon earth; by which I do not mean every Doctor that goes about taking guineas, but him who will neither flatter the great nor deceive the ignorant, and who would prefer the satisfaction of making one invalid a healthy man, to the wealth of *Radcliff* or the vogue of *Ward*. But there is an evil spirit of quackery gone forth, that has possessed all orders of men among us. I would lay it if I could, together with every demon of superstition, fraud, and error, and restore the world to truth and nature.

George Street, Hanover-Square,
Nov. 20, 1771.

A
DISSERTATION
ON THE
GOUT, &c.

However common it may be for men that suffer to complain of the evils of life, as the unavoidable lot of humanity; would they stop but for a moment to consider them in the light of reason and philosophy, they would find little or no foundation for them in nature; but that every man was the real author of all or most of his own miseries. Whatever doubts may be entertained of moral evils, the natural, for the most part, such as bodily infirmity, sickness, and pain; all that class of complaints which the learned call chronic diseases, we most undoubtedly bring upon ourselves by our own indulgences, excesses, or mistaken habits of life; or by suffering our ill-conducted passions to lead us astray or disturb our peace of mind. Whatever notions men have been taught or have received of other causes, such as accidental colds, or particularities of constitution, this or that thing disagreeing or surfeiting, &c. these are too trifling to produce diseases that commonly last for life: there must be something more substantial, something more constant and permanent in our daily habits, to produce such inveterate evils. Though if you read authors or consult practitioners, what do you find, but that you have taken cold, though you know not how, or that your complaints are gouty, rheumatic, bilious, nervous, &c.? words that satisfy, though they give no kind of idea, and seem to have gained credit and assent only by the politeness of physicians, who, while they are taking their patients' money, are too well bred to tell them disagreeable truths, and that it is by their own faults they are ill. To enquire a little further into this matter may be well worth our trouble; the task seems to have been left for me, and I will perform it most sincerely.

I have long had it in my mind to write upon chronic diseases in general, in the hope of giving mankind, what most assuredly they have never yet had, a few rational ideas about them; thinking that, if the true original causes of them were fully and fairly set forth, men could not be so capitally mistaken to impute them, as they do, to the false and imaginary, and therefore apply false and imaginary remedies; nor think that the general health of mankind were to be overset by every trifle, and the recovery of it lay hid in a few drops or powders of any kind. Did they better understand the nature of chronic diseases in general, and whence they proceed, they could not be so unreasonable to think they might live as they list with impunity, expecting repeated remedy from art; or, did they know any thing of the nature of medicine, they would find that, though fits of pain have been relieved, or sickness cured by it for a time, the establishment of the health is a very different thing, depending upon other powers and principles: the first may be and often is done by medicine, the other never. That their opinion of medicine is vain and ridiculous must appear, I think, very evidently to any one who recollects that the art of physic has now been practised, more or less regularly, above two thousand years; and most assuredly there is not yet discovered any one certain remedy for any disease. Ought not this to make us suspect that there is no such thing? How can it be, when different degrees of the very same disease require various means and methods, and the same thing that in one degree would relieve, or perhaps cure, in another might kill? It is by plan, by regimen, and successive intention, that diseases must be cured, when they are curable; or relieved and palliated when they are not. The skilful in medicine, and learned in nature, know well that health is not to be established by medicine; for its effects are but momentary, and the frequent repetition of it destructive to the strongest frames; that if it is to be restored, it must be by gently calling forth the powers of the body to act for themselves, introducing gradually a little more and more activity, chosen diet, and, above all, peace of mind, changing entirely that course of life which first brought on the disease: medicine co-operating a little. That this is the truth, all who know any thing of nature or art must know: and I may safely take upon me to say, that, though I firmly believe health may be restored in most cases that are not absolutely mortal, I am very sure that no invalid was ever made a healthy man by the mere power of medicine. If this be the case, how must the initiated, according as their humanity is touched, either laugh at or pity the poor foolish world, surrendering at discretion to the most ignorant of quacks, pretending to infallible remedies which are not in nature. But what is still more ridiculous, the patients themselves are often too ashamed to own they have been deluded, that they favor the cheat, by pretending to relief which they never felt.

I have collected a few materials for this work, which I intend to put in order, as soon as I can find time and industry enough to set about it in earnest; and, if I can finish it to my own satisfaction, perhaps I may some time or other trouble the world with it. At present I think myself particularly called upon to say something of the gout, as that disease was to make a considerable part of my plan; and, as I see now so many, and hear of more, who are throwing away, not only their money very foolishly, but, as I verily believe, the future health of their lives also, in hopes of a medical cure for it, to shew that such hopes are chimerical, and contradictory to every idea of true philosophy and common sense.

I shall therefore take a few extracts from this general plan, sufficient to shew the real original causes of all chronic diseases; which, though they have been multiplied without end, and numberless causes been assigned them, are certainly not many, and their first causes very few. I think they may very fairly be reduced to these three: Indolence, Intemperance, and Vexation.

From one or more of these three causes, I have undertaken to prove that all or most chronic diseases are produced; for different diseases may have the same original cause, the difference proceeding from the various degrees of strength and vigor in bodies; so that what would be gout in one, in another might be rheumatism, stone, colic, jaundice, palsy, &c. The gout is manifestly, and I think confessedly, a disease of the best constitution, and may therefore fairly stand as a representative of all the rest: as such I shall consider it for the present, and speak of these causes in their order: but it may be necessary to say a word or two of the gout itself before we enquire into its cause.

The gout is so common a disease, that there is scarcely a man in the world, whether he has had it or not, but thinks he knows perfectly what it is. So does a cook-maid think she knows what fire is as well as Sir Isaac Newton. It may therefore seem needless at present to trouble ourselves about a definition, to say what it is: but I will venture to say what I am persuaded it is not, though contrary to the general opinion. It is not hereditary, it is not periodical, and it is not incurable.

If it were hereditary, it would be necessarily transmitted from father to son, and no man whose father had it could possibly be free from it: but this is not the case, there are many instances to the contrary: it is therefore not necessarily so; but the father's having it inclines or disposes the son to it. This is the *causa proegumena* or *praedisponent* of the learned, which of itself never produced any effect at all; there must be joined the *causa procatarctica*, or active efficient cause, that is, our own intemperance or mistaken habit of life, to produce it; and accordingly, as this operates more or less, so will the gout be. Our parents undoubtedly give us constitutions similar to their own, and, if we live in the same manner they did, we shall very probably be troubled with the same diseases; but this by no means proves them to be hereditary: it is what we do ourselves that will either bring them on, or keep us free.

If it were hereditary, it would appear in infancy and in women, which in general it does not. I may be told of some women who have had it. I believe never very young, nor till they had contributed to it themselves; for women, as well as men, may abuse a good constitution. I have heard likewise of a boy or two out of a million that had it, or something like it; but these boys had been suffered to sip wine very early, and been fed and indulged every way most unwholesomely.

Those, who insist that the gout is hereditary, because they think they see it so sometimes, must argue very inconclusively; for if we compute the number of children who have it not, and women who have it not, together with all those active and temperate men who are free from it, though born of gouty parents; the proportion will be found at least a hundred to one against that opinion. And surely I have a greater right from all these instances to say that it is not hereditary, than they have from a few to contend that it is. What is all this, but to pronounce a disease hereditary, and prove it by saying that it is sometimes so, but oftener not so? Can there be a greater absurdity.

Some men observing, in the circle of their acquaintance, the children of gouty parents afflicted with the gout, and often very early in life, though they are what they call temperate, conclude, not unnaturally, that the disease must be parental, and unavoidably transfused into their constitutions. If this were the case, it must be for ever incurable, and the sins of the father visited upon the children not only of three or four but endless generations to come. Diseases really hereditary, I fear, are never cured by any art or method whatever, as is but too true in the cases of scrophula and madness, and diseases of taint or infection, and malformation. But here lies the error, their idea of temperance is by no means just[3]: for some men require a greater degree, a stricter mode of it than others, to be kept in good health. I make no doubt but if the lives these gouty descendants lead were closely inquired into by real physicians, they would be found to commit many errors, and to sin often against nature's law of temperance, or to want that constant peace of mind or regular activity of body which are as necessary as temperance, not only to keep off the gout, but to preserve health in general; and thus it will appear at last that they have contributed to it more than their parents.

If the gout be a disease of indigestion, and therefore of our own acquiring, we must reason very ill, or rather not reason at all, when we say it is hereditary; for surely no man will say that indigestion is hereditary, any more than intemperance. There are whole nations of active people knowing no luxury, who for ages have been free from it, but have it now since the Europeans have brought them wine and spirits.

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[3] See Chapter of Intemperance.

If the gout be thought hereditary because it is incurable by medicine, the same may be said of every other chronic disease, none of which ever are cured by it, I mean, so as not to return again. When was there a man who, having had one fit of rheumatism, stone, colic, &c. however happily relieved by art for a time, had it not again and again, or something worse in the place of it; till he became a confirmed invalid, and died long before his time, unless some very remarkable alteration took place in the course of his life to confirm his health? So it is in the gout: a man gets a fit of it, and by abstinence, patience, time and nature, the crude acrimony producing it is subdued and exhausted, and he is relieved for that time; (he might be so much sooner, and very safely too, by the assistance of art judiciously employed): he recovers however, and in a few months is taken again. Why? Not from any thing inherent in his constitution, but because he returned to his former habit of life that produced it at first, and will for ever produce it, while the strength of his body lasts.

The truth is, we breed it at first, we renew it again and again, and bring it on ourselves by our own mistakes or faults, which we would fain excuse by throwing them back upon our parents, that our complaints may be more justly founded. And as bankrupts, undone by idleness and extravagance, for ever plead losses and misfortunes; so do we inheritance, to exculpate ourselves.

It is natural enough for those who believe the gout hereditary to think it also periodical, as if something innate and inherent in our constitutions produced it at certain times: but this is a great mistake; for, if it were periodical, it must be regularly so. The only periodical disease I know is the intermittent fever, which, till it be disturbed by the bark or any other febrifuge, is as regular as a good clock. The returns of the gout are always very uncertain, according to the quantity or quality of accumulated indigestion within, and the strength of our bodies.

I come now to shew that the gout is not incurable. If by the cure of it be meant the administering a pill or a powder, or medicine of any kind to do it, I fear it is and ever will be incurable. It has been long and often attempted in vain, from the origin of physic to this day, from the first quack to the present. Indeed there is a most glaring absurdity at first sight, that must stop any man of common sense, who has the least insight into nature, or knowledge of the human frame: for, if the gout be the necessary effect of intemperance, as I hope to shew very evidently that it is, a medicine to cure it must be something that will enable a man to bear the daily intemperance of his future life unhurt by the gout or any other disease; that is, something given now that will take away the effect of a future cause. As well might a medicine be given now to prevent a man's breaking his leg or his neck seven years hence. One would think the utmost that any rational man could expect from medicine was, that it should have power to relieve and remove present disorders, leaving the body quite free, without pretending to insure it from future injuries. Here lies the error: men think the gout to be something latent in the body now, which, once well eradicated, would never return; not suspecting it to be no more than each day's indigestion accumulated to a certain pitch, that, as long as the vigor of life lasts, always brings on every fit, which once well over, the man has no more gout, nor seeds of gout in him, than he who never had it; and, if he did not breed it again, most certainly would never have it again. A proof of this is, that the gout has been cured by a milk diet, which, as long as it lasted, has generally kept the patient free. But this method of cure I cannot approve, because it relaxes and enervates the man, and does not sufficiently support the health and vigour of his body.

Though I think the gout incurable by medicine, it is so far from being incurable in its nature, that I am firmly persuaded it may be more easily and more perfectly cured than almost any other chronic disease; and this is another strong argument that proves it not hereditary. My reason is, that it is confessedly a disease of the strongest and best constitution relieving itself by throwing off harsh and bad humors from the vitals, and out of the blood upon the extremities, where they do least harm to the powers and principles of life and health; and as these humors can be nothing more than the daily accumulations of indigestion, if a man can live without breeding constantly this indigested acrimony, he may most undoubtedly live free, not only from the gout, but every other chronic disease also. And that he may live so, not in a perpetual state of mortification and self-denial, but with great ease and comfort to himself, in the truest, most philosophic luxury, I shall endeavour to prove, I hope to the satisfaction of all thinking, reasonable men.

I have said, that Indolence, Intemperance, and Vexation, are the original causes of all or most of our chronic diseases: perhaps a few accidents must be excepted, to which the strongest and healthiest are most liable; and the effects of fevers not happily ended; and which I except, to obviate all cavil and dispute with the men of art. I believe, to every considerate man, whose eyes have been opened so as to give the least insight into nature, the truth of this proposition will be so self-evident, that he must instantly perceive it; and every invalid that will be candid enough to do it, may fairly trace all his complaints up to one or other of these causes. But it may require some explanation to the generality of men, who are so short-sighted as never to look back or forward far beyond the ken of their nose, and therefore never see either distant causes or effects; and when they are sick seldom enquire more than for some cold or surfeit of yesterday, and to some such trifling cause impute diseases that last for life. An accidental cold or even debauch that happens but seldom can have no such effect; and men otherwise healthly, living in good habits, soon get rid of both. It is the constant course of life we lead, what we do, or neglect to do, habitually every day, that if right establishes our health, if wrong, makes us invalids for life.

Men ignorant of the ways of nature in the production and support of animals, not knowing what she requires to preserve them in health and vigour to their utmost period, have conceived very strange and most assuredly very false ideas of diseases in general, and seem to think every disease a distinct kind of being or thing, and that there are medicines opposed to each, that will certainly remove and cure it. This makes them so solicitous to know the name of their complaint, which once ascertained, they think the remedy not far off. Poor men! Is not the gout sufficiently distinguished? But where is the remedy? Certainly not in the precarious skill of prescribing doctors, or the secret of ignorant and enterprizing quacks. They fancy too that there is great variety of constitution, with diseases unavoidable peculiar to each: that certain times of life must produce many, and that it is impossible to grow old without sickness of some kind or other. There is certainly no foundation in nature for any of these opinions, nor is there any real essential difference of constitution, but of strong or weak, and this is produced more by habit than nature. The strong by bad habits will become weaker, and by good the weak stronger. But the most delicate frames may be as healthy as the strongest, for the same reason that a squirrel may be as healthy as an elephant. There is no disease necessarily peculiar to any time of life, however the changes into the different stages of it may effect the valetudinary. And it is possible for men to live to great age without any disease at all, for many have lived to upwards of an hundred with uninterrupted health.

Not from the natural defects of our constitutions therefore, but the abuse of them, proceed all our chronic diseases. That is, from Indolence, Intemperance, or Vexation. Let us now proceed to enquire what must be the necessary effect of one or more of these causes acting daily upon the body; whether in the strongest and most vigorous frames it must not be the gout; in weaker, rheumatism, colic, stone, palsy, &c. or any, or all of the nervous and hysterical class.

First, of Indolence, by which I do not mean insensibility, but an inactive habit of life, taking the word in the general common sense it is now used.

OF INDOLENCE

It seems to have been the design of Providence that all men should labor, every one for himself. That some are rich enough to purchase the strength and activity of others is a mere accident with regard to individuals, in which the care of Providence appears to be no otherwise concerned, than having unequally distributed those powers and abilities by which active and fiery spirits rise uppermost to preserve the harmony of subordination, without which society could never exist. The rich and great have so far forgot this first principle of nature, that they renounce all bodily labor as unworthy their condition, and are either too lazy or too inattentive to substitute exercise instead of it: thus sacrificing health to indulgence and dignity, they do not enjoy those advantages their superior station and fortunes give them; but in happiness fall often below the laboring hind. I remember to have seen a very ingenious little book upon the origin of evil, in which labor is considered as a great evil. The agreeable author must surely mean when it is excessive, and urged on the wearing and wasting the body; for in general it is the first principle of good to mankind, and to none more than the laborious themselves. Does he mean that it would be better for us all, did the earth spontaneously bring forth her fruits in such abundance, that we should no more labor or contend for them than we do for the air, and have nothing to do but bask in ease, and riot in enjoyment? If so I can by no means agree with him; for soon, very soon, in such a state of things, there would not be one healthy man upon the earth, and the whole race must quickly perish. Indeed I am afraid, notwithstanding all our unreasonable and unphilosophical complainings, the utmost wit of man cannot remove the least evil out of nature, without taking with it all the good. But begging pardon for this little digression, and to come back to my own purpose, I think he had been nearer the truth, had he put indolence in its stead, which is a source of great evil. Nothing undermines the foundation of all our happiness, the health and vigor of the body, like it, or lays such a train of diseases to come. But I must endeavor to shew in what manner.

It is upon the minutest and almost invisible parts of the body our best health, strength, and spirits depend: these fine parts, commonly called capillaries, are little pipes or tubes, the extended continuations of the larger blood vessels, through which the finest parts of the blood must constantly pass, not only to keep these very small channels always free and open, but also that the particles of the blood may in their passage be attenuated, broken, and rubbed into globules perfectly smooth and round, and easily divisible in still less and less, till they escape the sight assisted even by the microscope; which gives ocular demonstration of this most amazingly minute circulation. I have observed myself, and any curious patient man may see with a good microscope, in the pellucid membrane of any living animal, this surprizing minuteness. He may select and observe one single vessel, the smallest of those that convey red blood, many of which would not equal the smallest hair in size, through which the blood may be seen passing, not like a fluid, but a number of little red solid balls pushing one another on till they come to the extremity or ramification of the vessel where it divides into two still less. There the first globule, stopping a little, and recoiling, is pushed on again till it divides into two, and losing its red colour, passes on in the smaller pipes fitted only to receive the serum; which undergoes the same circulation till it be refined into lymph, and this into still finer fluids; which, being thus prepared, escape into a subtility beyond all possible observation. Now the strength of the near arteries alone, in a sedentary course of life, is by no means sufficient to keep up and perpetuate this motion through these capillaries, but requires the assistance and joint force of all the muscles of the body to act by intervals, compress the veins, propel and accelerate the circulation of the whole mass of blood, in order to force and clear these pipes, and to triturate, cribrate, and purify the fluid passing through, forming every particle of it into a perfect globule, which is the form all the atoms of matter must take from much agitation. Without this extraordinary occasional aid, the little vessels would by their natural elasticity, close up into fibres, or be obstructed by rough angular particles sticking in them, and stopping all passage. Numberless evils of the chronic kind, especially all nervous diseases, owe their origin to this cause alone. Accordingly we see most of those who have lived for any time in a state of indolence, grow emaciated and pale by the drying up of these fine vessels; or, if they happen to be of a lax habit, having a good appetite, and nothing to vex them, they may be loaded with fat; but they grow pale withal, many of those fine pipes being nevertheless closed up; so that they appear bloated, and their fat unwholsome, having much less blood in their veins than thinner people. Hence we may learn why these languid pale persons upon the least motion become faint and breathless, the blood hurrying through the larger vessels yet free, and, like a crowd obstructing its own passage, causing a dangerous suffocation. Or, if they have not been long in this state, nor the capillaries quite closed, they glow, especially young women, with a momentary red, the fine vessels being for that time expanded. Thus inactivity first forms obstructions in these exquisitely fine parts, upon which the health and vigor both of body and mind depend entirely, and lays the foundation of many diseases to come; which other concomitant circumstances, such as a violent cold, excess of any kind, infection from without, or a particular disposition of the body within, make often fatal to many in this habit of life; and which the industrious and active never feel.

Now I would ask any reasonable person, capable of considering this operation of nature with the least glimmering of philosophy, or even the attention of common sense, and most assuredly it concerns every man to consider it well, whether he can conceive it possible to substitute any medicine to be swallowed, that shall act upon the blood and vessels like the joint force of all the muscles of the body, acting and reacting occasionally in a regular course of moderate daily labor or exercise. Unless this can be done, I will venture to pronounce that there is no such thing as a lasting cure, either for the gout or any other chronic disease. Yes, Sir, says a common practitioner, cordials, volatiles, bracers, strengtheners, will do this, will keep up an increased circulation. Possibly they may for a few hours, by doing mischief for many days: but their action soon subsides, and the stimulus ceases; they must therefore be repeated and repeated for life. Woe be to him that takes them, & to him that leaves them off, unless it be done with great judgment. While they act, they coagulate the juices and corrupt the whole mass of blood; and when omitted, the patient must feel all the languors and horrors of a crapulary fever after repeated debauch; and must have recourse to them again and again, like a dram-drinker, who cannot bear his existence but in a state of intoxication. No, art can never come up to nature in this most salutary of all her operations.

But these obstructions from crude particles of the blood, and this inanition of the capillaries, are not all the evils produced by indolence. That sprightly vigor and alacrity of health which we feel and enjoy in an active course of life, that zest in appetite, and refreshment after eating, which sated luxury seeks in vain from art, is owing wholly to new blood made every day from fresh food prepared and distributed by the joint action of all the parts of the body. No man can have these delightful sensations who lives two days with the same blood, but must be languid and spiritless. To introduce new juices the old must be first thrown off, or there will be no room, there will be too great a plethora or fulness; the first cause of disease in many cases. In a state of inactivity the old humors pass off so slowly, the insensible perspiration is so inconsiderable, that there is no void to be filled; consequently by degrees the appetite, which is the last thing that decays, that is, the desire of supply, must daily diminish, and at last be totally lost. Here art can do wonders; it can procure evacuations; we can bleed, purge, and vomit; but then, to do any good by these, the case must be recent, before the humors are vitiated by too long a stay in the body, which will be the case very soon, for they are all in a perishable state, which makes their daily renewal so essentially necessary to health: but then these artificial evacuations discharge all alike; the new, the middle, and the old juices; that is, the chyle, the blood, the serum, and lymph; and by this indiscriminate action make strange confusion in those that remain; whereas in nature's course there is a constant regular transmutation and succession from one state to another; that is, from chyle into blood, and blood into serum, serum into lymph, and so on, till they are all in their turn, having done their office in various shapes, elaborated and ground to such a minute subtility and fineness, that, like wave impelling wave, they successively pass off in the vapor of insensible perspiration. In a state of indolence they do not pass off either so soon or so regularly as they ought, because there is not motion, nor consequently heat enough to throw off the vapor: they lodge in the body too long, grow putrid, acrimonious, and hurtful many ways, like the matter formed in an ulcer, which, while it is yet sweet, is more healing than any balsam the surgeon can apply; but, when confined, it soon becomes corrosive, and like a caustic eats it's way all round in fistulas to find vent. This shews the virulent acrimony of these confined and stagnating humors: hence the breath and perspiration, what there is of it occasionally, of indolent people is never sweet; and hence in jails, where these noxious vapors are collected and condensed from crowded wretches languishing in indolence, very malignant and pestilential fevers arise.

Perpetual blisters have been often thought, and sometimes found, to be serviceable in draining off some of the superfluous juices before they are much corrupted, and making, by a faint resemblance of nature's action, a little more room for new: and it is for this reason they do any good at all, by increasing the general circulation, and forcing off a few of those humors that had circulated too long in the body, and were becoming acrid: for the quantity they discharge is so trifling, that there could be no physiology, nor even common sense, in supposing the evacuation to be the benefit procured. By a vomit or a purge the discharge is a hundred fold more, but the good obtained not always so great, because by these the humors are indiscriminately thrown off, & much more of the new than the old. Many have used frequent bleeding to renew their blood, and I have known it answer very well to some, especially old people who had been long accustomed to it, whom it preserved to great age: but then it must be begun in time, before the whole mass of humors be vitiated, and continued for life. Is it not strange that men should seek and prefer these violent artificial methods to the simple, easy, pleasant, and constant action of nature, and chuse rather to take a vomit or a purge than a walk, and wear a perpetual blister than make the least use of their limbs?

Thus indolence must inevitably lay the foundation of general disease, and according to the constitution and a few concomitant circumstances will be the kind of the disease: in the very best it may be gout or rheumatism; in the weaker habits colic, jaundice, palsy, stone, &c. with all of the hysterical & hypochondriacal class. In vain have ingenious men of reading and study, mental labor and sedentary life, who are more subject to disease in general than the gay and thoughtless, endeavored to obviate the evil by abstinence, an excellent means of remedy in many cases, and which few practise but true philosophers, who are not the most likely to want it. But yet even they do not find it answer, and for the reasons which I have just given; that we cannot live two days in health and spirits with the same blood; there must be a new daily supply of that ethereal part of our food called up to the brain to support its own, as well as the labor of the whole body. By this I mean the most elaborated, refined parts of all our juices, which constantly repairs and nourishes the smallest vessels and fibres; whether I may be allowed to call it animal spirits or not, is not material. Whenever this aether fails, we must necessarily feel langour and lassitude both of body and mind: with this difference, that in weariness of the limbs from much action the lees and coarser parts are thrown off also, and the first meal and first sleep soon supplies the defect. In mental labor the feculence remains to obstruct all appetite; there is no room, and therefore no call for supply; the whole man suffers and sinks.

OF INTEMPERANCE

I come now to speak of Intemperance; for Indolence, blunting all our sensations, naturally leads us to intemperance: we want the whip and spur of luxury to excite our jaded appetites. There is no enduring the perpetual moping languor of indolence; we fly to the stimulating sensualities of the table and the bottle, friend provokes friend to exceed, and accumulate one evil upon another; a joyous momentary relief is obtained, to be paid for severely soon after; the next morning our horrors increase, and in this course there is no remedy but repetition. Thus whoever is indolent is intemperate also, and partly from necessity; and the evils necessarily following both these causes often make the rich & great more wretched than the poor, and the ballance of happiness is held more equally between them; for however other things may be distributed, happiness, like water, always finds its level among men. I wish this observation might cure these of their envy, and teach the others how to enjoy their wealth.

Before I return to my subject, I fear I must make an apology for what I am going to say, and hope no one will be offended when I venture to say that nine in ten of all the chronic diseases in the world, particularly the gout, owe their first rise to intemperance. Many a good man, who piques himself upon being the most sober regular creature alive, and never eats but one or two plain dishes, as he calls them, nor exceeds his pint of wine at any meal; keeps good hours, and never sleeps above eight or nine, may be surprized, if not affronted, to have his disease imputed to intemperance; which he considers as a great crime. And yet he is often ill, sick in his stomach, troubled with indigestion, and crippled by the gout. The case is, we judge of temperance and intemperance from our own habits, without any just idea of either. What we are used to do, and see others do, we think right, and never go up to nature for our knowledge. The best way to explain what I mean by intemperance, may be to enquire what is nature's law of temperance, and to deviate from that must be considered as intemperance. And here I must beg leave to observe, that temperance is a thing of which no Englishman has or can have the least idea, if he judges from his own or his neighbor's, habits. To form some notion of it he must have seen other countries, particularly Spain, Portugal, or Italy, and observed how men live there. What they call temperance, or even tolerable living, with us would be thought downright starving. In this view temperance is local and comparative; but what I mean is natural temperance not depending upon place or custom (for I do not mean fasting or abstinence, which can never be salutary but after repletion); and we must not judge of it from countries where a piece of bad bread and an onion with a draught of water is thought a tolerable meal; nor from our own, where beggars live better than the nobles of some countries, and where we riot in the choice of plenty native and exotic every day.

To come then to my idea of it: I think there is an absolute, determined temperance, to be measured by every man's natural unprovoked appetite, digestion and consumption, while he continues in a good state of health, and right habit of life. As long as a man eats and drinks no more than his stomach calls for, and will bear without the least pain, distention, eructation or uneasiness of any kind; nor than his body consumes and throws off to the last grain; he may be said to live in a very prudent well-regulated state of temperance, that will probably preserve him in health and spirits to great old age.

This is nature's law: and the reverse of it, or indeed any great deviation from it, must be intemperance. When we eat without appetite, or urged beyond moderate satiety, provoked by incentives of any kind: when we drink without thirst for the sake of the liquor. Indeed I cannot allow him to be strictly temperate who drinks any wine or strong liquor at all, unless it be medicinally, or now and then for the sake of society and good humor, but by no means every day.

Now let us compare this simple idea of temperance with the common course of most men's lives, and observe their progress from health to sickness: for I fear we shall find but very few who have any pretensions to real temperance. In early youth we are insensibly led into intemperance by the indulgence and mistaken fondness of parents and friends wishing to make us happy by anticipation. Having thus exhausted the first degrees of luxury before we come to the dominion of ourselves, we should find no pleasure in our liberty did we not advance in new sensations, nor feel ourselves free but as we abuse it. Thus we go on till some friendly pain or disease bids, or rather forces, us to stop. But in youth all the parts of our bodies are strong and flexible, and bear the first loads of excess with less hurt, and throw them off soon by the assistance from artificial evacuations. As we grow older, either by nature in due time, or repeated excesses before our time, the body is less able to free itself, and wants more aid from art. The man however goes on, taking daily more than he wants, or can possibly get rid of; he feels himself replete and oppressed, and, his appetite failing, his spirits sink for want of fresh supply. He has recourse to dainties, sauces, pickles, provocatives of all sorts. These soon lose their power; and though he washes down each mouthful with a glass of wine, he can relish nothing. What is to be done? Send for a physician. Doctor, I have lost my stomach; pray give me, says he, with great innocence and ignorance, something to give me an appetite; as if want of appetite was a disease to be cured by art. In vain would the physician, moved by particular friendship to the man, or that integrity he owes to all men, give him the best advice in two words, *quaere sudando,* seek it by labor. He would be thought a man void of all knowledge and skill in his profession, if he did not immediately, or after a few evacuations, prescribe stomachics, bitter spicy infusions in wine or brandy, vitriolic elixirs, bark, steel, &c. By the use of these things the stomach, roused to a little extraordinary action, frees itself, by discharging it's crude, austere, coagulated contents into the bowels, to be thence forwarded into blood. The man is freed for a time, finds he can eat again, and thinks all well. But this is a short-liv'd delusion. If he is robust, a fit of gout succeeds; if less so, rheumatism or colic, &c.

as I have already said. But let us suppose it to be the gout, which if he bears patiently, and lives moderately, drinking no madeira or brandy to keep it out of his stomach, nature will relieve him in a certain time and the gouty acrimony concocted and exhausted by the symptomatic fever that always attends, he will recover into health; if assisted by judicious, milk, and soft medicines, his pains might be greatly assuaged and mitigated, and he would recover sooner. But however he recovers, it is but for a short time; for he returns to his former habits, and quickly brings on the same round of complaints again and again, all aggravated by each return, and he less able to bear them; till he becomes a confirmed invalid and cripple for life, which, with a great deal of useless medication, and a few journies to Bath, he drags on, till, in spite of all the doctors he has consulted, and the infallible quack medicines he has taken, lamenting that none have been lucky enough to hit his case, he sinks below opium and brandy, and dies long before his time. This is the course I have lived to see many take, and believe it to be the case of more whom I have never heard of, and which any one may observe in the circle of his acquaintance, all this chain of evils is brought on and accumulated by indolence and intemperance, or mistaken choice of diet. How easily might they have been remedied, had the real cause been known and attended to in time.

I believe I must here explain a little more fully what I mean by provoking the appetite, which I take to be the general mode of intemperance among men; for custom has made all kinds of incentives to excess so common, that those of daily use, far from being considered in the class of intemperance, are by most people thought to be not only salutary but necessary; and they never suspect the least evil from the common decoraments of the table, salt, pepper, mustard, vinegar; and yet, however extraordinary it may seem, I will venture to pronounce that excess in any of these must be doubly prejudicial to health: hurtful in themselves by their acrimony, they provoke the appetite beyond natural satiety to receive an oppressive load, which the stomach itself would soon feel, were it not artificially stimulated to discharge it into the blood by wine and strong liquors immediately after. Thus one error brings on another, and when men have eaten too much, they drink too much also by a kind of necessity. He will certainly be a healthier man, who is very moderate in the use of these things, than he who exceeds; they may be sometimes useful as medicines; but can never add to the wholsomness of our daily food. To give some weight to what I say, there are whole nations in the world that have never known any of them, and are healthy, strong, and vigorous. I do not mean by this to proscribe them entirely, especially salt and vinegar; but only to recommend great moderation.

If this be true of the common provocatives at every poor man's board, who is there that exceeds not nature's law? who is truly temperate? What shall we say of that studied, labored, refined extravagance at the tables of the rich, where the culinary arts are pushed to that excess, that luxury is become false to itself, and things are valued, not as they are good and agreeable to the natural and undebauched appetite; but high, inflammatory, rare, out of season, and costly; where, though variety is aimed at, everything has the same taste, and nothing it's own. I am sorry and ashamed, that men professing luxury should understand it so little, as to think it lies in the dish or the sauce or multitude of either; or that urging beyond natural satiety can afford any real enjoyment. But this they do by all the researches of culinary and medical art, introducing all the foreign aids to luxury, every stimulating provocative that can be found in acids, salts, fiery spices, and essences of all kinds, to rouse their nerves to a little feeling; not knowing the more they are chafed and irritated the more callous they still grow; and the same things must now be more frequently repeated, increased in quantity, and exalted in quality, till they know not where to stop, and every meal they make serves only to overload and oppress the stomach, to foul and inflame the blood, obstruct and choak all the capillary channels, bring on a hectic fever of irritation, that though it raise the spirits for the evening, leaves behind it all the horrid sensations of inanition and crapula the next morning; and but that nature is so kind as to stop them in their career with a painful fit of gout or some other illness, in which she gets a little respite, they would soon be at the end of their course.

Men bring all these evils upon themselves, either not knowing or not attending to two things: the one, that pleasure is a coy coquet, and to be enjoyed must not always be pursued; we must sometimes sit still, that she may come and court us in her turn: the other, that pleasure and happiness are as distinct things as riot and enjoyment: besides, pleasure is not infinite, and our sensations are limited: we can bear but a certain measure, and all urging beyond it, infallibly brings pain in it's stead. Let the men of high experience bear me testimony, that this is true of all the luxuries of the table, wine, music, women, and every sensuality.

These men may tell me, perhaps that I have made a mighty fine declamation against luxury and intemperance: but what is this to the purpose? they desire not to be told of their faults, nor to hear disagreeable truths which they know already. Have I no art or skill to reconcile health and luxury, no remedy, no rare secret to repair and restore sensation and vigour worn to rags? No Medea's kettle to boil anew? If not, do not describe to us a life of moderation, temperance, and exercise: it is not worth having upon these terms. I am aware of the unreasonable expectations of many, that their demands would rise high, some of them to the impossible. At present I am only setting forth the causes: when I come to talk of remedy, I will endeavour to convince them that the artificial helps they expect are not in nature, but that there are in nature ways and means by which many gouty, broken constitutions, that have been despaired of, might be repaired and restored to a very desirable degree of health and enjoyment. But I must first say a word or two to the intemperate or mistaken in the middle class of life.

In England all degrees of men are furnished with the means of intemperance, and therefore it is no wonder that most men are intemperate. If they are less so in other countries, it is not that they have more virtue, but they want the means: their oppressive governments, the precarious state of property, and their superstitious religion, keep them so poor that luxury is not in their power. They have however this advantage from their poverty, that they are much less afflicted with chronic diseases than we are. I verily believe there are more gouts in England, than in all the rest of Europe: a proof that good living is more universal. But not to the advocates for this good living do I wish to address myself; I fear they will be as incorrigible as their superiors in higher and more refined luxury. But there are some not intemperate from choice, but example, habit, custom, mistake, not knowing their daily diet to be unwholsome, and productive of their diseases. To these it may be of some use to have the unwholsome pointed out, and their choice directed to better things. Men of laborious occupations, who work in the open air, can and do bear great excesses and much unwholsome diet without much hurt: I never knew a sick or gouty gardener that was not a remarkable sot. But men of sedentary trades and business, shopkeepers of all kinds, feel much sooner and more heavily the ill effects of intemperance or mistaken choice in their meat and drink. Their first care therefore ought to be, not to add the diseases of intemperance to those of inactivity, but proportion what they take, as well in quantity, as in quality, to their consumption. But let us see how well they do this. They all say they live upon plain things, and never indulge in made dishes; but they will eat heartily of a goose or duck, with a large quantity of sage, onion, pepper and salt, a pig with familiar preparation, and a hare with higher and more compounded seasoning. Do they ever eat veal without stuffing, or even a leg of mutton without caper-sauce? If ever they eat a steak or a chop, if it is sometimes without pepper, I believe it is never without pickles, the worst of all poisons. They are surprised that such meals should rise on their stomachs with flatulence, sour and bitter hiccups and eructations, which, if they did not keep them down with a sufficient quantity of wine or sometimes a dram, they would be troubled with all the time of digestion. If this method succeeds so far as to quiet their stomachs for the present, they go on with it, regardless or ignorant of future and distant consequences. Thus are these sharp, harsh, hot and inflammatory things forced out of the stomach into the blood, before it has had time to dilute and subdue, or reject them, and the superfluous load they bring along with them. And thus is laid the foundation of every disease, that appears when these acrid and fiery particles are accumulated in the blood to a certain degree.

There are others whose pretensions to plain diet may seem better founded, but who nevertheless eat, and are fond of, things unwholsome, and very unfit for men of sedentary lives; such as salted and smoked flesh and fish of all kinds; hams, tongues, heavy flour puddings, toasted cheese, &c. all which are of such hard and indissoluble texture, that they never dissolve well in the stomach of a plowman: the same salt, seasoning, and smoke which harden and preserve them from putrefaction before they are eaten, keep them from dissolution afterwards, so that they never are digested at all; nor is it possible any good nourishment should ever come from them: the salts they contain are indeed melted in the intestinal juices, and get into the blood, producing, in the best constitutions, those tettery, itchy, or scaly eruptions, commonly but very erroneously called the scurvy, which is quite another kind of disease. To this kind of food is owing the bad health of country people, and their children's rickety heads and limbs, and big and hard bellies.

Another capital mistake many people fall into, who in other respects are very moderate in their diet, is, that the flesh-meat they eat is always over-done; if boiled too much, the juices are soft; if over-roasted, fried, or broiled, the action of the fire continued too long, changes the mild animal flesh into something of another quality; the fat is made bitter and rancid, which fire will always do by the sweetest oil; and the scorched outside of the lean, dry and acrimonious: the less therefore all flesh-meat undergoes the power of fire, the milder and wholsomer it is. I do not mean by this to recommend the customs of Cannibals and Tartars who eat raw flesh; or beasts of prey, that devour animals alive: but it may be observed, that the first are free from our diseases, and the others amazingly strong & vigorous. We may learn this from them at least, that our meat cannot be the wholesomer for being, as some call it, thoroughly done; and that we should learn to like it with some of its red juices unspoiled by the fire. Upon this principle the English cookery is to be preferred to the French, who stew and roast to rags; and of English cookery broiling must be the best.

This leads me to another observation, which perhaps none but physicians, or those who have studied well the nature of man and his ailments, are able to make. It is this: that man being born to devour most of the fruits and animals of the earth and water, there ought to be a certain proportion of animal and vegetable substances in his food; the animal tending spontaneously to putrefaction, the vegetable correcting that tendency from going too far: thus from the due mixture of both qualities results that neutral property, equally distant from acid as alkali, that is essentially necessary to produce good blood. This is so manifest, that who ever will observe attentively may see, whenever either of these prevails in body, there is so strong a desire and longing for things of the other sort, as well as pleasing sensation in the palate and stomach when they are taken as plainly indicate the natural want. Let a man have lived long upon flesh-meat wholly, he will have a most eager appetite for fruit and vegetables and if kept too long without them, as is the case with those who have lived some time at sea, will grow sick of the real scurvy; but if before they are too far gone they reach the land, they will eat the first common grass they can come at, with more avidity than a horse or ox, and be perfectly cured by it. In like manner they who have lived long upon vegetables (which regimen is often prescribed to invalids, especially in the gout) will have great craving for flesh-meat. We ought to learn from all this to attend diligently to the calls of nature, and ballance the mixture with due proportion, not only that our vitals may have the less labor in preparing and making our juices fit for nourishment, but to prevent the diseases that are peculiar to the predominancy of either. And here I may observe, that the error of most men's diet in every class of life is, that the acid, crude and austere, almost always abound: not that they do not eat flesh-meat enough, but they spoil it in the preparation and cookery, changing its animal nature into something worse than vegetable, taking off intirely all its tendency to dissolution and putrefaction by salting, smoking, pickling, potting, and preserving things that in their own simple nature would soon corrupt and dissolve; but by these preparations are hardened and embalmed to keep for years like mummies. The same may be said of every kind of made dishes; the salts, spices, hot herbs and acids, with which they are seasoned and compounded, preserve and harden them to keep for ever: the sauces and gravies they swim in have the same effect as so much pickle. The things we feed upon ought all to be in a perishable state, or they will never furnish the materials of good blood; and what ever is hardened or seasoned so as to keep long before it be eaten ought not be eaten at all, for it will never dissolve in the stomach.

The nature of most chronic diseases, and their first symptom heartburn, as it is commonly called, plainly shew the original cause to be acid crudity prevailing in the juices; producing coagulations, concretions and obstructions of various kinds; all which are very manifest in the gout, rheumatism, stone, and most nervous cases: the remedies also, that sometimes relieve and palliate, confirm this; such as the volatile alkalies, hartshorn, salt ammoniac, testaceous powders, sope, &c. Many may be surprized at this, and say, it cannot be; for, though they have these diseases, they take little or no acids: but there are many things they take that are acescent, that is liable to become acid, especially by the heat of the stomach. This they are not aware of; but they are in their nature much more prejudicial than things already sour: for, besides that people take not these in any quantity, the acescent never become sour but by the act of fermentation, which, being raised in the stomach where it ought never to happen, produces strange tumults, wind, vapor, gas, that is, that fume arising from fermenting liquors of any kind, which has been known sometimes to kill at a stroke. It may here be necessary to enumerate some of those things called acescent. These are sweets of every kind, puddings, cakes, pastry, creams, confections, &c. and every thing made of flour, especially fermented; bread in particular, so far from being the wholsome thing many imagine, is not only unwholsome by its acescency, but, by the strong ferment it contains, whenever it predominates, it forces into fermentation every thing capable of it, that it meets with in the stomach[4]: the bread of London I fear is particularly so; partly by being robbed of its bran, which in some degree would soften and correct it, but chiefly by having in it, besides its usual ferment, a great quantity of sour alum, most absurdly added to make it unnaturally white.[5] Many eat bread from principle, and like it by habit; take a slice between meals, and with their fruit as a corrector; and think a bit of bread and glass of wine a most abstemious excellent supper. I think they are mistaken in all this, and that bread ought to be eaten but sparingly, and for want of other and better vegetables. In this light we must also consider most sorts of seasonings, stuffing, force-meats, and compounded sauces. But the greatest acescent, or rather bane of all, high and low, rich or otherwise, whoever they are that take it constantly, is wine: wine alone produces more diseases than all the other causes put together. All men allow that wine taken to excess is hurtful: they see the immediate evils that follow; but distant effects, that require more attentive and deducive observation, very few see or believe; and judging from present and agreeable feelings, they say that a little wine is wholesome, and good for every one, and accordingly take it every day, give it their children, and teach them to like it by debauching their natural taste in the earliest infancy: thus they come to relish it by habit, and to be uneasy without it, like snuff takers without their tobacco: the want is equally habitual and unnatural in both cases; for the stomach wants wine no more than the nose does snuff: the immediate sensation of both, after a little use, is pleasant; but the remote effect of wine taken constantly infinitely more pernicious than of the snuff. This hurts the nose only; the other accumulating a little indigestion every day, corrupts all the juices of the body most essentially. And though it be often taken with a view to promote digestion and assist the operations of the stomach, it manifestly does harm to both. Instead of digesting and dissolving, it hardens, and prevents dissolution, and curdles and corrupts the milky chyle and first juices produced from our food. It warms indeed and stimulates the stomach to greater exertion than is natural or necessary, and thereby enables it to discharge it's contents the sooner; whence that agreeable feel of warmth and comfort from it's immediate action. But by this extraordinary action it forces our food out of the stomach too soon, before it is softened, dissolved, and properly prepared, and sends it into the bowels crude, hard, and austere, in that state to be carried into the blood, there to produce every kind of disease. Whatever therefore the advocates for a little wine every day may think, or argue in favor of it; they are most undoubtedly in a very great error, and it were certainly much better and safer to drink a bottle and get a little merry once a week, drinking water only or small beer at all other times: in which interval nature might totally subdue it, and recover intirely. Water is the only liquor nature knows of or has provided for all animals; and whatever nature gives us, we may depend upon it, is safest and best for us. Accordingly we see that when we have committed any excesses or mistakes of any kind, and suffer from them, it is water that relieves. Hence the chief good of Bath, Spa, and many other medicinal waters, especially to hard drinkers. It is the element that dilutes, and carries off crudities and indigestions, &c. the mineral virtues they contain may make them tolerable to the stomach in their passage, but do, as I believe, little more in the body: it is the water that cures. Wine, if it be not of our own inventions, was given us as a cordial in sickness, weariness, sorrow, and old age, and a most salutary charm it would be for most of these evils, did we not exhaust it's power by daily use, and instead of taking it as such, drink it up as common draught in youth and health to make us mad. I know this is a very tender topic to touch upon, and too favorite a pleasure to argue against, with any reasonable hope of convincing; most men having so indulged themselves in this bewitching habit, that they think they cannot live without a little wine every day, & their very existence depends upon it; their stomachs require it, nature calls for it, St. Paul advises it, it must be good. Thus men catch at every shadow of an argument that favors their inclinations. St. Paul advises it as a medicine sometimes, but certainly not every day. There is no medicine I know of, that, taken every day, will not either cease to act entirely, or by acting too much do harm. It will be said, that many drink wine every day without gout, stone, or any disease at all in consequence of it. I believe not many, or I should know some of them. If any are so strong as to bear it to old age unhurt, they must be very active as well as strong to subdue it. But I have nothing to say to these; my business is with invalids who complain, and certainly ought not to measure constitutions with those above their match. The same arguments will hold equally in favor of every other bad habit. Your nose will want it's snuff, your palate it's spices; and when the fashion was for women to be small waisted, their galled sides grown callous by the long compression of the stays wanted their support. Nature, like a true female, cries out at the first violence, but submits in time, is reconciled, and grows fond of the ravisher. But it is the business of philosophers to distingush carefully between the real wants of nature and the artificial calls of habit; and when we find these begin to hurt us, we ought to make the utmost persevering efforts to break the enchantment of bad customs; and though it cost us some uneasy sensations at first, we must bear them patiently; they will not kill; and a very little time will reconcile us to better modes of life.

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[4] Whoever requires proof of this, may have it by the following experiment: Put a common toast into half a pint of water, and let it stand six or eight hours near the fire, so as to be kept in the heat of the human stomach, and it will be sour as vinegar.

[5] To be convinced of this, boil a pound of common London bread in a sufficient quantity of water to make it thick as gruel. Let it stand to subside; pour off the clear, and boil away all the water; the alum will be found at bottom, mixed with a little common salt.

There is another capital mistake many labor under in the choice of their wine, preferring the strong, hot, and coarse sorts, Madeira, Port, Mountain, &c. to the milder, more elegant, and certainly less unwholsome French and Italian wines, accounting them better for the stomach, and good against wind, &c. My observation has been, that they who use these strong stomach wines to cure wind are never free from it, and all the gouty disorders of indigestion. Indeed, it cannot well be otherwise; for there is nothing so repugnant to natural digestion as the use of these strong liquors, which instead of dissolving harden everything; and thus for ever, when the first warmth is gone off, leave a crapulary, crude, sour load of yesterday, to ferment, fret, and irritate the stomach and bowels every day.

Thus have I endeavored to point out two of the true primary, capital causes of the gout, and most other chronic diseases; and most sincerely wish that what I have said may engage those whom it mostly concerns, the gouty, the infirm and valetudinary of every class, to observe, reflect, and think for themselves upon the hints I have thrown out; in which light what I have said, must be considered, rather than as logical or demonstrative proof. I know the reasoning and arguments may be much improved and carried farther, and if I had more leisure I might have attempted it: but I am well aware of the unsurmountable difficulty of convincing men against their will by any arguments at all. I chuse therefore at present to invite them to self-conviction from their own observations and experience. I flatter myself they will find it well worth their pains, to reason a little more than they do with and for themselves; and it will be a great point gained for them, if it turn their misled opinions from all that imaginary power of restoring health in any of that multitude of ridiculous and most truly contemptible medicines, that are daily obtruded upon the public, with endless lies to recommend them, by a set of the poorest, most ignorant and paltry rogues in the nation; and engage their attention to their true remedy, a right institution of life. In judging of which, if they find themselves unequal to the task, they may be assisted by men of humanity, skill, and honesty.

OF VEXATION

I come now to the last general cause of chronic diseases, Vexation. A very fruitful parent of many bodily evils, producing generally diseases of inanition, much more difficult, not only to be cured, but relieved, than those we suffer either from Indolence or Intemperance. But as it is not so common a cause of the gout as the other two, it may not be necessary to consider it very minutely at present. I shall not therefore enter deeply into the regions of metaphysical conjecture, nor run wild after my own conceits, or theirs who have gone astray before me, in guessing at the incomprehensible union of soul and body, and their mutual powers of acting upon each other. I shall content myself with observing only, what may be of some use, that every great degree of vexation, whether in the shape of anger, envy, resentment, discontent or sorrow, has most destructive and deleterious effects upon the vitals of the body, whether sudden and violent, or slow and lasting.

The first immediate effect of violent grief or vexation is to take off the action of the stomach intirely. Let us suppose a man, in the best health, the highest good humor and spirits, as well as good stomach, sitting down to dinner with his friends, receives suddenly some very afflicting news. Instantly his appetite is gone, and he can neither eat nor swallow a morsel. Let the same thing happen after he has made a hearty, chearful meal, as suddenly the action of his stomach, the whole power of digestion is cut off totally, as if it were become paralytic; and what he has eaten lies a most oppressive load. Perhaps, as the excess of weakness is often convulsion, it may be rejected by a violent vomit, or do greater mischief. For which reason such strokes of distress are less hurtful received upon an empty than a full stomach. But why is this? What connexion is there between a piece of bad news and a man's stomach full or empty? Whatever the cause be, the effect is certain and invariable. Is it because the animal spirits, or the action of the nerves, whatever by the secret cause of their power, is called of to supply and support the tumultuous agitation of the brain, and the stomach, with all it's appendages and their secretions, is left powerless and paralytic, and must therefore either act convulsively or not at all?

Besides this pernicious effect of perverting the natural action of the stomach and intestines, the whole circulation of the blood is disturbed. The contraction and dilatation of the heart, that is, the alternate action by which it opens to receive the blood from the veins, and closes again to force it out through the arteries; which operation ought to be as true and certain as the vibrations of a pendulum; are broken and uneven: the heart flutters, palpitates; now is overloaded with blood and in danger of suffocation, now receives none at all: consequently all the secretions must be as irregular, some of the glands receiving too abundant a supply, that either hurries through, or oppresses and overpowers them, others none at all. Hence that hasty gushing of pale limpid urine in amazing quantities, those sudden bursts of unmeaning tears: sometimes great dryness and choaking thirst, sometimes the overflowing of the mouth with water instead of saliva, and many other nervous and hysterical affections, fits, syncope, epilepsy, &c. all which indicate the greatest tumults and perturbations in the inmost recesses of the nervous and vital frame. Many kinds of disease have sprung from this fountain, of such unaccountably horrid and terrifying appearances, that formerly they could no otherwise account for them, but by the malefice of sorcery, and the immediate possession of devils.

In slower, more silent, but longer continued grief, the effects are similar, but not so violent. Many little strokes repeated will do the same thing in time that a great blow does at once. The function of the stomach will be more gently disturbed and perverted, it's juices vitiated, and all it's contents will forever turn sour, bitter, or rancid; so that no mild milky chyle, or wholsome material of nourishment, can ever come into the blood. The patient must languish with cachectic inanition, universal bad habit of body, or pine and waste with atrophy, the want of nourishing supply; whence arise complications of various diseases succeeding each other, always from bad to worse: and unless he can subdue his anxiety, and restore peace of mind, he must in time sink under it, and die, as it is said, of a broken heart.

Whoever vexes long, must certainly want nourishment; for, besides the disturbed state of the stomach, it's broken appetite and bad digestion, from whence what supply there is must come not only ill prepared, but vitiated, into the blood; there can be no sleep in this state of mind: the perturbed spirit cannot rest; and it is in sleep that all nourishment is preformed, and the finer parts of the body, chafed and worn with the fatigue of the day, are repaired and restored to their natural vigor. While we are awake this cannot so well be done; because the incessant action of the body or mind, being always partial and irregular, prevents that equal distribution of the blood to all parts alike, from which each fibre and filament receives that share or portion that suits it best. In sleep, when it is quiet and natural, all the muscles of the body, that is, all its active powers that are subject to our will, are lulled to rest, composed and relaxed into a genial, temporary kind of palsy, that leaves not the least obstruction or hindrance of the passage of the blood to every atom. Accordingly the pulse is always slower and more equal, the respiration deeper and more regular, and the same degree of vital warmth diffused alike through every part; so that the extremities are equally warm with the heart.

Vexation operating in this manner upon the organs of digestion and concoction, and disturbing and obstructing the natural progress of nutrition, must often produce diseases similar to those of long continued intemperance; it's first effect being indigestion with all it's symptoms, wind, eructation, heart-burn, hiccup, &c. It is no wonder therefore it should sometimes bring on a fit of gout, which as I have said, is manifestly a disease of crudity and indigestion; and often the gout in the stomach and bowels. Indeed most cold crude colics are of this kind. Schirrous concretions will also be formed in the spleen, liver, glands of the mesentery, and throughout the whole system of the belly. Many of these indurated tumors will appear outwardly, so as to be felt by the hand; these in time will degenerate into cancers and cancerous ulcerations, and many fatal evils, not the least of which, in my opinion, is, that the patient will suffer a long time before he dies.

All the passions, when they are inordinate, may have injurious effects upon the vital frame: excessive joy has sometimes given a fatal blow, and sudden bursts of laughter done great mischief, especially to delicate or weakly people who have often been thrown into spasms, cramps, convulsions, hysteric fits and haemorrhages by them. But as I think the word Vexation comprehends the chief of those passions that hurt us most, and mean not to make a metaphysical enquiry about them, it is needless to be particular upon each. It may suffice to have shewn the immediate and remote influence of vexation upon the human body.

Whatever men may think of their diseases, their strange symptoms & appearances, and their unaccountable causes, these are the three original great sources of most of the chronic diseases of mankind; which I have endeavored to set forth and explain in so familiar a manner, that I hope I have been perfectly intelligible to every one who will venture to think and judge for himself. To such rational people only I address myself; and to enable them to do this the better, I have furnished these hints and observations, which may be extended, improved and applied to particular cases. I want not, nor wish to obtrude my ideas upon any man, however warranted I may think myself from the observation and experience of my whole life: my principal aim has been only to make men stop a little in their career, and consider with themselves whether it may not be possible for them to be mistaken, even in that course of diet and those habits of life which they never suspected. If they are ill, and for any time, there must be a more substantial cause for it, than they are in general willing to allow. It is not always catching cold, for we do not catch cold so often as we think we do; and when a healthy robust person takes cold, which can happen but rarely, if this be the whole of the disease, it cannot last long. But the truth is, when the crudity, superfluity and acrimony of an indolent, intemperate life have accumulated to such a degree as to make us sick, then we say we have taken cold, or complain of a bad constitution, when we have spoiled perhaps a very good one; or with Sydenham, that the epidemic constitution of the air has infected us, or that this or that trifle has disagreed. I am fully and firmly persuaded, that whoever will reflect with some degree of intelligence and sanity, be just to himself, and candid with his physician, will in general be able to trace his complaints and diseases up to one or other of these three causes. And whoever does this, must infallibly see how vain and idle all his hopes and expectations of lasting remedy and established health must be from any kind of quack medicines, or indeed the common and too general practice of physic, when the whole is rested upon something given to swallow; how inadequate the means are to the end proposed and hoped for; how ill vomiting and purging can supply the place of temperance; bleeding, blistering, and all artificial evacuation, of activity; cordials & opium, of peach of mind. Is not this to fill the body with harsh & unholsome juices, and then tear it to pieces to get them out again? To make artificial holes and sores in the skin to renew the blood and discharge superfluities, instead of employing muscular motion to rub off and grind down all the acrimony of angular aculeated particles, and make them smooth and round, & easily divisible; and to employ intoxication and stupefaction to take off the sense of pain, and leave the cause where it was, or fix it faster? Can any reasonable person hope for health or long life by any of these unnatural methods, when these only are employed? Let him look round among his neighbours and acquaintance, and tell me whether, not only all the gouty, but rheumatic, colicky, jaundiced, paralytic, dropsical, hysterical people he has ever seen, are not either always so, or by fits so; and whether those returning paroxysms or fits of these disorders do not always grow worse and worse, in spite of all their medication and quackery, till a complication or apoplexy comes on, that at last, though long before their time, puts an end to their miserable lives. These evils are considered as the inheritance of human nature, unavoidable & incurable, and submitted to in absolute despair; though there has not one rational attempt, that I know of, ever yet been made to remedy them in earnest. All the methods hitherto employed have only been to relieve, and those often so perniciously, that the future health has been sacrificed to obtain present relief or ease. This must for ever be the case when in chronic cases it is obtained by art, and nature has no share: or where the physician does all, and the patient nothing for himself.

OF THE CURE OF THE GOUT AND ALL OTHER CHRONIC DISEASES, AND THE REPAIR OF A BROKEN CONSTITUTION

Having set forth the real causes of the gout, & all it's congenial diseases, I come now to the most essential part, to administer all possible comfort to those whom great pain and long suffering may have made attentive and docile, and willing to take health upon the terms it is possible to have it. To the young and voluptuous, who are yet in their career, and declare for a short life and a merry one, I have nothing to say but this, that a short life is very seldom a merry one; on the contrary, is generally made up of a few years of riotous pleasure without happiness, to be severely paid for by as many more of pain, sickness, regret and despair.

Having shewn that the gout is not hereditary, not inherent in our constitutions, but produced by the daily accumulations of indigested, unsubdued acrimony and superfluity, which, when they abound to a certain degree, must end either in a fit of the gout or some other disease, according to the constitution, as long as any vigor is left in the body; for nature will for ever free or endeavour to free itself, and purge the blood of its impurities by gout, by fever, by pain of one kind or other, that takes off the appetite, and for a time gives respite, and prevents the pouring in of more and more enemies to disturb it's operation, and make it ineffectual. Thus young people, after a fit of gout is happily and well gone off, are as free from it as if they had never had it; and if they would take warning and be careful not to breed it again, most certainly would for ever remain free. How absurd therefore, how ridiculously ignorant must be every attempt to cure the gout *in futuro* by medicine, before it be yet formed, before it has any existence! Can such a medicine give supernatural strength, and enable an old man living in indolence to digest and consume, or discharge the superfluities of his daily intemperance? that is, to give him more vigorous powers than nature gave him at one-and-twenty, or when the gout came first upon him. The Duke of Portland's powder promised to do something like this, and most certainly kept off the gout for two or three years. But what was it? and what did it really do? It was a strong spicy bitter taken in substance, in a large quantity, for a long time; its effect was to keep up a constant fever as long as it was taken; this kept the gouty matter always afloat, and prevented its fixing any where. But there was no living long with a constant fever; accordingly many of those who took it died very soon. I myself observed between fifty and sixty of it's advocates, some my patients, some my acquaintance or neighbors, who were apparently cured by it for a little while; but in less than six years time, *omnes ad internecionem caesi*, they all died to a man.

Many similar attempts have been made with other medicines to cure not only the gout, but most other chronic diseases, and with the same fatal effects. Antimony and Mercury elaborated into poisons by chemistry have been administered, particularly the solution of sublimate has torn many a stomach to rags, so that it could never bear common food afterwards. The deadly night-shade, and hemlock, and many such dreadful poisons, have been given as alteratives to restore health. The intention here seems to be, kill or cure, to raise a violent agitation or fever in the body, in hopes it may prove strong enough to throw off the disease and medicine together. The effect has ever been, notwithstanding a little apparent and deceitful relief may have been perceived from the first efforts, that it has sunk under both loads, and, exhausted by repeated straining, much sooner than by the disease alone.

Can any one in his senses suppose that diseases a man has been his whole life contracting, and to which he is adding every day by perseverance in unwholesome diet, and bad habits, are to be thus removed by a *coup de main ou de baguette?* or that they will not return, be they cured or conjured away ever so often, whilst he continues the same mode of life that brought them on at first?

What then is to be done? how and in what manner are chronic diseases and cachexies to be cured and health restored and established? I have already shewn that the causes of these evils are Indolence, Intemperance, and Vexation: and if there be any truth or weight in what I have said, the remedies are obvious: Activity, Temperance, and Peace of Mind. It will be said the remedies are obvious, but impracticable. Would you bid the feeble cripple, who cannot stand, take up his bed and walk? the man who has lost all appetite, abstain? and the sleepless wretch racked with pain enjoy peace of mind? No certainly; I am not so absurd. These must be assisted by medicine; and if they have not exhausted all it's power already, a little respite, a favourable interval may be obtained, that, with other artificial aids co-operating, may be greatly improved to their advantage, and if rightly employed they may get on from strength to strength, till they recover into perfect health. But it is not my design at present to expatiate upon that particular kind of medical relief which every chronic case may require; it would lead me into too wide a field, and too far from my present purpose, which is to shew that the gout, in most of its stages and degrees, may be cured, a present paroxysm or fit relieved, it's return for ever safely prevented, and the patient established in perfect health.

Let us suppose the case of a man from forty to fifty years of age, who has had at least twenty fits of gout; by which most of his joints have been so clogged, & obstructed, as to make walking or any kind of motion very uneasy to him; let him have had it sometimes in his stomach, a little in his head, and often all over him, so as to make him universally sick and low-spirited, especially before a regular fit has come to relieve him. This I apprehend to be as bad a case as we need propose, and that it will not be expected that every old cripple whose joints are burnt to chalk, and his bones grown together and united by anchylosis, who must be carried from his bed to his table and back again, should be proposed as an object of medication and cure; and yet even he might perhaps receive some relief and palliation in pain, if he has any great degree of it, which is not very common in this case. Let us therefore suppose the first example.

If the point be to assuage the violent raging of a present paroxysm; this may be safely done by giving some soft and slowly-operating laxative, neither hot nor cold, but warm, either in small doses repeated so as to move the patient once or twice in twenty-four hours, or by a larger dose oftener in less time, according to the strength and exigency. This may be followed by a few lenient absorbent correctors of acrimony or even gentle anodynes: proper cataplasms may also be safely applied to the raging part, which often assuage pain surprizingly; with as much mild and spontaneously-dissolving nourishment as may keep the spirits from sinking too low: but I would wish them to sink a little, and exhort the patient to bear that lowness with patience and resignation, till nature, assisted by soft and succulent food, can have time to relieve him. This easy method of treating a fit of the gout would answer in any age; and if the patient was young and vigorous, and the pain violent, there could be no danger in taking away a little blood. Thus in two or three days time I have often seen a severe fit mitigated and made tolerable: and this is a better way of treating it with regard to future consequences, than bearing it with patience and suffering it to take it's course: for the sooner the joints are relieved from distension and pain, the less danger there is of obstructions fixing in them, or their being calcined and utterly destroyed. But instead of this, the general practice is quite the reverse. Oh! keep up your spirits, they cry; keep it out of your stomach at all events; where, whenever it rages in a distant part, it is not at all inclined to come. As you cannot eat, you must drink the more freely. So they take cordials, strong wines, and rich spoon-meats. By urging in this manner, a great fever is raised, the pain enraged and prolonged; and a fit, that would have ended spontaneously in less than a week, protracted to a month or six weeks, and, when it goes off at last, leaves such obstruction and weakness in the parts, as cripple the man ever after. All this I hope will be fairly and candidly understood; for there is doubtless a great variety of gouty cases, but no case that will not admit of medical assistance judiciously administered.

But the most capital point of all, and what is mostly desired by all, is to prevent it's return, or changing into any other disease, and to establish health. Most men would be very well pleased and happy could this be done by any medical trick or nostrum, with full liberty of living as they list, and indulging every appetite and passion without controul. Some poor silly creatures, ignorant of all philosophy and the nature of causes and effects, have been led into experiments of this kind by a few artful rogues, very much to the prejudice of their future health, and danger of their lives also; expecting from medicine, what it never did or can perform alone, the cure of chronic diseases.

I think it needless here to take any pains to shew the inefficacy of all the common modes of practice, vomiting, purging, bleeding, blistering, issues, &c. They have been found ineffectual not only in the gout, but all other chronic cases. All sensible practitioners must know their effects to be but temporary, & that they are meant and used only as means of present relief. Let us see therefore by what practicable plan or regimen the person here discribed, when a fit of the gout is happily ended, may for ever prevent it's return, and so confirm his general health that it shall not again be overset by every slight cold or trifling accident.

I have already shewn that a certain degree of activity or bodily motion is necessary at intervals every day, to raise the circulation to that pitch, that will keep the fine vessels open and the old blood pure, and also make new from the fresh juices. If the patient cannot be brought to this, he has no chance of recovering to perfect health. If therefore he can neither walk nor ride at all, he must by degrees be brought to do both by the assistance of others, which may be given him in the following manner: Let a handy active servant or two be employed to rub him all over, as he lies in bed, with flannels, or flannel gloves, fumigated with gums and spices, which will contribute greatly to brace and strengthen his nerves and fibres, and move his blood without any fatigue to himself.[6] This may take up from five to ten minutes at first, but must be repeated five or six times a day, supposing him totally unable

[6] This may seem but a trifling prescription to those who have never tried it sufficiently, but is of the most utmost consequence, and it's effects are amazing; especially to all those who are too weak to use any muscular motion themselves. A little friction may have little or no effect, but long continued, and repeated often, with fumigated flannels, it will do more to recover health, and support it afterwards, than most other things or methods. It promotes circulation and perspiration, opens the pores, forces the fine vessels, strains and purifies the blood and this without the assistance of any internal stimulation. It is this that keeps horses in tolerable health with very little exercise.

to help himself. But if he can walk a hundred yards only, it will forward him greatly to walk those hundred yards every two hours, and if he can bear a carriage, let him go out in it every day, till he begins to be tired. The first day or two all this may disturb and fatigue him a little; but if he has patience to persevere to the fourth, I dare promise him some amendment, & increase of strength; which he must employ, as young merchants do a little money, to get more. Thus he must go on rubbing, walking, and riding a little more and more every day, stopping always upon the first sensation of weariness to rest a little, till he be able to walk two or three miles at a stretch, or ride ten without any weariness at all. This is recommended with an intention to dislodge and throw off all remains of crude gouty concretions that may have obstructed his joints, or lain concealed in any of the *lacunae* or recesses of his body; to free the circulation in *minimis*, and all its secretions, perspirations, and discharges whatever: and though this intention can never be but very defectively answered by medicines, it may certainly be assisted and greatly promoted by a few well-chosen mild antimonial, absorbent and saponaceous deobstruents and sweetners, that, like putting shot or gravel into a bottle, with a good deal of agitation will greatly help to make it clean, but without agitation will do nothing.[7]

While we are thus endeavoring to resolve all old obstructions, to open the fine vessels, and strain and purify the blood, and by degrees to enable the man to use a certain degree of exercise or labor every day; great care must be take in the choice of his diet, that no new acrimony be added to the old, to thwart and frustrate this salutary operation. His food must be soft, mild, and spontaneously digesting, and in moderate quantity, so as to give the least possible labor to the stomach and bowels; that it may neither turn sour, nor bitter, nor rancid, nor any way degenerate from those qualities necessary to make good blood. Such things are, at first, new-laid eggs boiled so as not to harden the white creamy part of them, tripe, calves' feet, chicken, partridge, rabbits, most sorts of white mild fish, such as whiting, skate, cod, turbot, &c. and all sorts of shell-fish, particularly oysters raw. Very soon he will be strong enough to eat beef, veal, mutton, lamb, pork, venison, &c. but these must all be kept till they are tender, and eaten with their own gravies without any compounded sauces or pickles whatever: instead of which, boiled or stewed vegetables, and sallads of lettuce and endive, may be used: and the luxury that is not unwholsome may be allowed, light puddings, custards, creams, blanc-manger, &c. and ripe fruits of all kinds and seasons. But because[8] wine undoubtedly produces nine in ten of all the gouts in the world, wine must be avoided, or taken very sparingly, and but seldom. How is this to be done? Can a man used to it every day, who thinks he cannot live without it, and that his existence depends upon it, leave it off safely? If he thinks he must die of the experiment, doing it all at once, he may do it by degrees, and drink but half the quantity of yesterday till he has brought it to nothing. But the danger of attempting it in this manner is, that it will never be done; and, like a procrastinating sinner, he will for ever put off his penitential resolution till to-morrow. If he did it at all at once, I would be hanged if he died of the attempt; he would be uneasy for three or four days, that's all. He may change his liquor, and drink a little good porter, or soft ale, and by degrees come to small beer, the wholsomest and best of all liquors except good soft water. I do not mean that this rigorous abstinence from wine is to last for life, but only during the conflict with the disease. As soon as he has recovered health and strength to use exercise enough to subdue it, he may safely indulge once a week, or perhaps twice, with a pint of wine for the sake of good humor and good company, if they cannot be enjoyed without it; for I would not be such a churl as to forbid, or even damp, one of the greatest joys of human life.

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[7] The Asiatics, understanding luxury much better than we do, and knowing that it is not to be had without some degree of delicate health, do just enough to keep them, in this languid effeminate state, free from pain. Those who are rich among them employ people called Champoers to rub, chafe, and pat them all over at least twice a day, to move their blood and keep their vessels free without any labor or exertion of their own powers. This daily practice in hot countries, where they live in the most slothful indolence, is not only necessary to them, but a great luxury. The Greeks and Romans too, when they became luxurious, fell into habits of this kind, and were strigilled, and curried, and bathed, and oiled, almost every day.

[8] I have made what inquiries I could upon this capital article from living witnesses; for I do not always pin my faith upon books, knowing it to be no uncommon thing for authors, instead of framing their system from observation and experience, to wrest and explain both to support their opinions. I have been assured by a physician who practised above thirty years in Turkey, that from the Danube to the Euphrates he had never seen a gouty Turk. I have also been informed by some of our ministers who had resided many years at Constantinople, that the gout, and other diseases of the same class, were not uncommon at court; but the courtiers, it seems, were not as good Mahometans as those who lived in the country; for they drank wine, drams, liquors of all sorts, without restraint.

I have also been very credibly informed, that the Gentoos or Marratas, a people of India living in the most temperate simplicity, chiefly upon rice, have no such thing as the gout, or indeed any other chronic disease among them.

If any man should say, It is better to have a little gout than take all these pains, and submit to this discipline: this is not the alternative. Perhaps it may be more eligible to live at large, and have but a little gout now and then, that goes off well, and leaves no trace behind; but this is very seldom the case. The misfortune is, that a little gout most commonly comes again and again more severely, till it becomes a great gout, till it cripples the man, and shortens his life at least twenty years, embittering all the latter part of it. If any one thinks this description of it, which is the real state of the case nine times in ten, preferable to that gradual exertion of his own powers and strictness of regimen, or rather attention to himself, with very moderate abstinence or self-denial for a year or two, as here recommended; I have no reply to make him, but must give him up to his own choice.

The severity of these efforts, and this abstemious care need be continued no longer than the disease or the effects of it remain. When by perserverance in the practice of them, together with the medical aids here recommended, the patient shall have recovered his strength and locomotive powers, he may preserve and perpetuate them, and make good his title to longevity, upon the following plan.

He must never lose sight of the three great principles of health and long life, Activity, Temperance, & Peace of Mind. With these ever in view, he may eat and drink of every thing the earth produces, but his diet must be plain, simple, solid and tender, or in proportion to his consumption; he must eat but of one thing or two at most at a meal, and this will soon bring him to be satisfied with about half his usual quantity; for all men eat about twice as much as they ought to do, provoked by variety: he must drink but little of any liquor, and never till he has done eating: the drier every man's diet is, the better. No wine oftener than once or twice a week at most; and this must be considered as a luxurious indulgence. If he be sometimes led unawares into a debauch, it must be expiated by abstinence and double exercise the next day, and he may take a little of my magnesia and rhubarb as a good antidote: or if he cannot sleep with his unusual load, he may drink water, and with his finger in his throat throw it up. I have known some old soldiers by this trick alone, never taking their dose to bed with them, live to kill their acquaintance two or three times over. One moderate meal a day is abundantly sufficient; therefore it is better to omit supper, because dinner is not so easily avoided. Instead of supper, any good ripe fruit of the season would be very salutary, preventing costiveness, and keeping the bowels free and open, cooling, correcting, and carrying off the heats and crudities of his indigestion.

His activity need be no more than to persevere in the habit of rubbing all over night and morning for eight or ten minutes, and walking three or four miles every day, or riding ten, or using any bodily labor or exercise equivalent to it. In bad weather I can see no great evil in throwing a cloak round his shoulders and walking even in the rain; the only difficulty is to summon resolution enough to venture out; and a little use would take off all danger of catching cold, by hardening and securing him against the possibility of it upon that and all other occasions. If he dares not risque this, some succedaneum must be used within doors; more especially when bad weather continues any time. I recommend it to all men to wash their feet every day, the gouty in particular, and not lie a-bed above seven hours in summer, and eight in winter.

Whoever thinks there cannot be luxury enough in this course of life, I am persuaded will not find more in any other: for good health, and all it's natural appetites and sensations in perfect order, is the only true foundation of luxury. And whoever cultivates it upon the false principles of culinary or medical art, urging to excess by stimulating provocatives of any kind, instead of pleasure and enjoyment, will meet with pain and disgust.

Some perhaps may be reasonable enough to observe and say, This plan of yours is very simple; there is nothing marvellous in it; no wonderful discovery of any of the latent powers of medicine: but will a regimen, so easy to be comply'd with as this cure the gout, stone, dropsy, &c.? Will it repair broken constitutions and restore old invalids to health? My answer is, that if I may trust the experience of my whole life, and above all the experience I have had in my own person, having not only got rid of the gout, of which I have had four severe fits in my younger days, but also emerged from the lowest ebb of life, that a man could possibly be reduced to by colic, jaundice, and a complication of complaints, and recovered to perfect health; which I have now uninterruptedly enjoyed above ten years: I say, if I may rely upon all this, I may with great safety pronounce and promise that the plan here recommended, assisted at first with all the collateral aids of medicine peculiar to each case, correcting many an untoward concomitant symptom, pursued with resolution and patience, will certainly procure to others the same benefits I received from it, and cure every curable disease. If this be thought too much to promise, I beg it may be considered, that a life of bad habits produces all these diseases: nothing therefore so likely as good ones long continued to restore or preserve health.

What can the best physician do more than discover and point out to his patients the real causes of their diseases? You will say, he must find a remedy: this he will do for you also as long as he can. But I will tell you a secret: his remedies are chiefly evacuations; as long as your body can bear scouring and cleaning,[9] he will do you some temporary apparent service: but when it begins to wear out, his remedies will answer no longer; you must try better methods; you must not repeat the cause so often; for he cannot for ever build up as fast as you can pull down. In short, you must reform your life, and change all your bad habits for good ones; and if you have patience to wait the slow operations of nature properly assisted, you will have no reason to regret your former luxuries.

We are all so much the creatures of habit, which forms and fashions us to good or ill almost as much as nature itself, that we ought to be very attentive and careful that our daily habits may ever tend to the confirmation, not the destruction of health. It is not what we do now and then that can injure us greatly, but what we do every day must either do us great good or harm; either establishing our health, or fixing our diseases, for life.

If, after all, any man should say, these restraints, this care in chusing what is wholsome, this constant watching over all we do, would make life so grievous, that health were not worth having upon these terms; I wish him to stop a little, and consider them well before he rejects them intirely; and whether there be any better for him. It can do him no great harm to try a month or two; if he does I flatter myself he will find that custom will take off the greatest part of the grievance, and perseverance make them not only tolerable but pleasant. If he thinks health may be enjoyed upon easier terms, I fear he will be miserably deceived; for health like beauty, may be won by our own attention, efforts, and assiduities, but cannot be had by purchase. Whoever thinks to buy either, will have the misfortune to find it not long his own, though he has paid for it.

But there may be others whom long suffering has made more patient and reasonable: these may be glad to hear that a little health is to be had on any terms; and it may be very comfortable to them to know that there is scarcely any state of weakness so low, supposing the vitals not mortally hurt, from which they may not recover into very desirable health & strength, & by these means, exerted with persevering patience. I say this to invalids in general: for thus may be cured not only the gout, but very bad rheumatisms, ischiaticas, rickets, stone, jaundice, dropsy, asthma, cachexies, and complications of many kind; not excepting even cancers, if they are not too far gone: for a cancer is nothing more than a place where nature deposits the bad humors of the blood, as appears by its almost constant return to some other part after extirpation. Whatever chronic disease will not give way to this system of medication, will be found, I greatly fear, too hard for any other. And should there be a particular case, in which some fortunate violence or chance may have apparently succeeded for a time, the return of the evil, or change to something worse, can no way be so well guarded against and prevented, as by some rational and natural institution of life.

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[9] Paracelsus was a good chemist, but a miserable physician: he invented the medicine which he most ridiculously called *Elixir proprietatis;* and from it's efficacy, sot as he was, promised himself the years of Methusalem. At first it did wonders, scoured and carried off his crapulary indigestions, and kept him some time in health and spirits; but trusting to it too long, and repeating it too often, it not only lost all it's power of doing good, but hurt him greatly, and he died, I think, at six-and-thirty, notwithstanding his Elixir.

Thus have I endeavored to set forth the real causes of chronic diseases in general and the true principles of convalescence, health, and longevity. If I have hazarded any thing new, or contrary to received opinions, it has been from a thorough conviction of it's truth, however dangerous to fame and fortune; both which I know are more easily acquired by complying with the world, than attempting to reform it: but it must be somebody equally indifferent to both, as I am, who will venture to tell such truths as are more likely to recoil and hurt the author, than to convince and conciliate the bulk of mankind.

THE END

THE
DOCTOR DISSECTED
OR
WILLY CADOGAN
In the Kitchen

Addressed to all Invalids, and Readers of a late Dissertation on the Gout, &c. &c. &c.

By a LADY

"The best of all Doctors is Sweet Willy O."

LONDON:
Printed for T. Davies, In Russel Street, Covent Garden, and S. Leacroft, Charing Cross.
M.DCC.LXXI.
[Price ONE SHILLING.]

THE DOCTOR DISSECTED, &C.

The Town are half mad (you have heard without doubt)
For a book that is called *Dissertation on Gout,*
That king of diseases, no longer endure,
Adhere to its rule—fee a radical cure!
But alas! cou'd [10]*Lebeck,* or poor [10]*Cloe* but know,
What a penance, it says, we must all undergo,
The author, to Styx, in a sulphurous flame,
They'd waft, and extirpate the breed and the name:
But, lest the poor wight, shou'd oblivion lie snug in,
Without further preface—'tis *Willy Cadogan.*

Regardless of profit, not studious to please,
Tho' deck'd in long wig, and enrich'd with degrees,
He, in two-fold capacity, there does appear,
And hopes (—for our health's sake), we'd lend him an ear:
As *doctor,* and *cook,*—no disgrace to the college,
For troth, he lay's open a wide field of knowledge.

He tells us, at once, in a manner laconic,
"That all the diseases the learned term *chronic,*
"From intemp'rance, vexation, and indolence claim,
"Their rise, and their first introduction to fame."
But declin'd in his practice, this wonderful scapin
Treats on cul'nary arts, and cries down Æsculapian.

"The gout, a disease now so common is grown,
"There scarce lives a man, but its twinges has known;
"Or, say he shou'd not, full as well can explain,
"Its cause, and its several stages of pain:"
Unless, to the stomach, it chance to get clear in,
And then, he'll pronounce you,—as dead as a herring.

"To define what it is, he there does not mean,
"But *what it is not,* as may plainly be seen:
"And tho' his opinion is, *contradicente,*"
To those of the faculty, nineteen in twenty:
"He still will maintain, that from father to son,
"Like estate that's entail'd, it by no means doth run:
"Of cure, is not void—to no period is stated,
"That a cook maid as soon, (when she's thoroughly heated)
"Might talk with Sir *Isaac* on subject of fire,"
And swear that when broiling, folks do not perspire,
As, physical tribe, dare to enter a caveat,
Against its proceeding from causes he'd have it.
"'Tis next to impossible, oft we are told,
"Without pain or sickness, alas! to grow old;
"The strong, by bad habits, grow weaker we know,
"And by good ones the weak will grow stronger also:"
But wou'd ye to fam'd Epictetus adhere,
"Whose philosophy teaches to bear and forbear,
"You'd find in good health, at a hundred and twenty"
Maids, widows, and batchelors—*Deo favente.*
Of the days of good Adam, our grandsire, he'd sing,
Who fed on the herb, and who drank from the spring;
'Till Eve,—wicked jade!—for an apple so rare,
Entail'd on posterity ages of care:
Which apple, they say, was in semblance so fine,
It cou'd be no other I guess—than a Pine.—

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[10] Two famous cooks.

Excuse the digression—to palliate I strove,
The sin of first parents, since most of ye love,
To partake of this fruit,—and if tempted by Eve,—
Not a man of ye all,—but wou'd Paradise leave.

This first state of nature you now must pursue,
"For medical aid, it is plain, will not do;
"Use manual labor, walk many a mile,
"Or pester'd you'll be,—with gout, cholic, and bile."
For nature alone by brisk exercise thrives,
A new lease it will give the most desperate lives.
Scrub tables, clean pewter, and dry-rub your rooms,—
He'll furnish with bees-wax, mops, brushes and brooms:
And rather than not set your blood in a fluster,—
I'll venture to promise,—to each a *clean duster*.

"Indiscriminate action, makes shocking confusion,
"But lest you are puzzled to find an allusion;
"Like the sun 'fore the moon, and the moon 'fore the sun,
"Chyle, serum, lymph, blood,—shou'd in due order run."—

"Beware of pretenders to physical myst'ry,
"Nor let 'em phlebotomize, sweat, or e'en blister ye,
"Avoid, like a pestilence, ignorant Quacks,
"From those in gilt chariots,"—to plain simple hacks.
Disciples of Galen, all shut up your shops,
No need, have we now, of your balsams or drops;
"Dear volatiles, cordials, and bracers," adieu!
Ye all must give place, to a system quite new.

"The physical art, above two thousand years,
"We find has been practis'd"—he tells it with tears:
With tears that so deep, on his paper are sinking,
He scarcely can scribble,—for winking, and blinking:
But bar all reflection,—(fond sorrow adieu!)
The secret must out, and 'tis fatally true!
"No one certain remedy, e'er has been found,
"For any disease that exists above ground!"
Thus each invalid, will proof positive find,
That the lame *must* be lame, and the blind, still be blind.
But, for fear you'd suspect his poor head is quite addle,
With quacking *Le Fevre* he once does not meddle.

"Our sensations, thro' indolence, having grown weak,"
He next does proceed of Intemp'rance to speak:
"Our appetites jaded, to quicken and stir
"We of luxury, now, want the whip, and the spur.
"Thus friend, provokes friend, and a moment that's joyous
"May produce a disease—will for ever annoy us."

"From plain decorations on table, when seen,
"We never suspect any ill, so I ween:
"*Salt, mustard,* and *pepper,* ay! *vinegar* too,
"Are quite as unwholesome as pudding I vow;
"And bread," the *main staff of our Life,* he does call,
"No more, nor no less—than the *worst thing of all.*"

"All lovers of goose, duck, or pig, he'll engage,
"That eat it with onion, salt, pepper, and sage,
"Will find ill effects from't," and therefore no doubt,
Their prudence shou'd tell them—best eat it without,
But alas! those are subjects on which there's no reas'ning,
For you'll still eat your duck, pig, and goose, with its seas'ning;
And what is far worse—notwithstanding his huffing—
"You'll make for your hare, and your veal, a good stuffing:
"And I fear, if a leg of good mutton you boil,
"With sauce of vile capers—that mutton you'll spoil:
"Nay more, on a chop if you dine—'tis but just
"That pickles you eat—of all poisons the worst."
"If sauce, and provocatives, thus you will sip up,
"No wonder you're plagu'd with a sour, bitter hiccup:"
And 'tho, as you think, to procure good digestion,
A mouthful of cheese is the best thing in question:
"In *Gath* do not tell, nor in *Askalon* blab it"—
(You're strictly forbidden to eat a welch rabbit)
Excuse me, dear doctor, nor deem it a fault,
If seas'ning denied, I should try attic salt:
This indulgence I crave, absolution pray give;
And I'll honour your maxims as long as I live.
Good spice he condemns, and what's very queer
"He prohibits all liquors, excepting *small beer:*"
Objects to their quality, hints that, *sans* useing 'em,
We may live, if we please, to the age of Methusalem.—

Ye homeward bound Indiamen—wou'd you could hear! ah!
At some foreign port, land your spice and Madeira,
One pint of soft water, that liquor divine,
Is better, far better, than hogsheads of wine:
"But for company's sake,—and the doctor's a trimmer!
One day in a month,—he'll allow us a brimmer.

"But say, shou'd our spirits sink, appetite fail,
"What then's to be done?—send for good doctor Quail?"
Him seated, imprimis, ("with innocence you,
"And *quantum sufficit* of ignorance too,)
"Will tell him, that nothing you eat, you can relish,
"Tho' with pickles, and danties your meal you embellish:
"He attends to your case, prescribes something that's spicy,
"To warm and invig'rate" your stomach so icy:

"Infusions in brandy, vitriolic elixirs,"
Enough to make any man well, that is sick, sirs;
Or wou'd you permit me the truth here to tell,—
Vice versa—to make you all sick that are well.
But shou'd his old friend, learned doctor *Curando,*
Feel your pulse, shake his head, and write—"quare sudando,"
Yet think not to draw from one son of the college,
Without moneys attraction a ray of his knowledge.

The wilds of America sure claim his birth,
For lo! the unwholsomest food upon earth,
Is meat, as we eat it, or roasted, or boil'd,
Since that he pronounces entirely spoil'd,
"And therefore, 'tis fitting we learn to admire,
"And like cannibals eat it unspoil'd by the fire."

No doubt his remark is most highly judicious,
"For to see the red juices is truly delicious,"
And by way of incitement—a hint if you please—
"The tartars and cannibals, know no disease."

"The evils we feel, we most certainly cause,"
By trampling, downright, upon wise nature's laws:
"Our pleasures, are like a coquet that is coy,
"Which is always pursu'd, we shou'd never enjoy:
"Let *her* court in her turn," and you humor the jest,
('Those say that have try'd, it gives passion a zest)
"Our sensations are limited; if we go further
"Than Nature ordains, upon pain we must border:"
That truth he then tells, is what common sense shews
"If you'll venture to look beyond ken of your nose."

"Some men of fine taste, and experience high,
"May chance read his book, and its matter decry,
"They like not to hear disagreeable truth
"Which, in vain, was enforc'd in the days of their youth:
"But can he no recipe find to restore,"
The bloom of eighteen at years fifty and four?
"No kettle Medean to boil them anew,"
No herbs, aromatic, together to glew.
"Sensation and vigor, to rags quite exhausted;"
If not, for an ignorant fool he is posted.—

To which, he immediately gives 'em their fiat,—
"In ease now you bask, in enjoyment you riot:"
You feed on rich sauces, you drink of strong wine,
In the morn go to bed, and at evening you dine;
Thus the order of nature is set topsy-turvy,
And hence you contract palsy, jaundice, and scurvy:
From causes like those, such effects will needs spring,
And a cobler that's hale,—is above a sick king:
No cure for such ills, he'll pronounce with a groan—
Full as soon cou'd he find the philosophers stone.

What on earth are ye doing say [11]*Horton* and *Birch?*
You're helping the citizens, fast, to a crutch—
As a punishment due to your crime, pray rely on,
Your being both chain'd to a wheel like Ixion:
No more shall ice cream, with its delicate hue,
Be prophan'd, by the lips of turk, christian, and jew:
Ne'er again, must we venture, on cheescake or puff,
Having late been inform'd it is all horrid stuff:
Nor in winter, on soup, to regale us be eager,
Unless you'll engage 'twill be perfectly *meagre.*

Instructions, ye housewifes, you now must give o'er,
Alas! you must stew, pot, and pickle no more;
Nay, e'en to *preserve;* you must sit in supineness,
Nor dare, as of old, to destroy us with kindness:
"For sweets of all kinds, puddings, pies, and confections,
"And to ought that's fermented he makes great objections."
—But jelly of hartshorn, I guess we may eat,
Since that is not mention'd—no more than calves' feet:
A propos! if there's nought on the fire that is spoiling,
Wou'd you deign, just to give us a hint, upon broiling?
How oft we must turn a beef steak, and how seldom,
A good mutton chop, for to have 'em both well done.
This art of all arts to excel in you'll try,
For stew'd, bak'd, nor potted, nor fish must ye fry:
And, therefore your credit, at once, you may fetch up,
If to broiling you'll add a receipt for good ketch-up.

I humbly request, you will spare the relation,
Of what is compriz'd in the third head—*vexation.*—
And believe me likewise when I freely declare,—
"That a bad constitution I cannot repair:"
"Disease in futuro," a kingdom to gain,
"I cou'd not prevent by a new coup de main:
"Nor of spasms, convulsions," pretend e'er to chatter,
Being fully convinc'd—I know nought of the matter.

"One *cramp*, I have found, not excited by laughter:"—
But perhaps I may touch on that subject hereafter:
So, 'till then, on specific of *mine* pray rely,—
That to laugh, is much wholesomer, friends,—than to cry:

Physicians, I beg, of all rank, and degrees,
You'll learn the new method of getting your fees:
Politeness discard, and adopt in its stead,
The manner now practis'd of being well bred:
"Tell your patients their folly deprives them of health,"
And prefer honest bluntness to fame and to wealth:
"That, in fact, you as soon can eradicate pain,
"As prevent a man breaking his neck in years twain."

But forgive me this lecture—'twas wrote in a pet—
For as soon cou'd your right hand its cunning forget,
Much sooner, you'd cease, to cringe, flatter, and bow,
Than your hand in position to place—you know how—
Just fit to receive, and as fit to restrain,
The contents, which a thin bit of paper explain.

But if cholic, nor vapors, our frame shou'd affect;
Adieu! to the practice of doctors elect:
You'd best then, remain sirs, *aut Caesar, aut Nullus,*
Of our money and lives, with formality, cull us;
Nay, I'll not mince the matter,—in troth I hate lying—
"In minimis" take it—you live by our dying.

STELLA.

FINIS

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[11] Puff shop in Cornhill.

[From Wirzung: General Practise of Physicke, London, 1605]

EDITORIAL

THE DISCOVERY OF THE PULMONARY CIRCULATION BY SERVETUS

A MOST interesting communication has been written by Leonard L. Mackall entitled "A Manuscript of the 'Christianismi Restitutio' of Servetus, placing the Discovery of the Pulmonary Circulation Anterior to 1546."[1] Mackall states that ever since the appearance of William Wootton's "Reflections upon Ancient and Modern Learning" in 1697, it has been generally known that the earliest *printed* description of the pulmonary circulation is contained in Servetus' "Christianismi Restitutio," printed at Vienna in 1553. He disposes very neatly of the assertion made by Achille Chereau that Servetus merely copied an account of the discovery from a description of it by Realdo Columbo. The latter's book was not published until 1559, six years after that of Servetus. Chereau admits the fact that the "Christianismi Restitutio" was circulated in manuscript in 1546, and that this manuscript appeared at several sales during the eighteenth century, but he seems to think that because he himself had not seen it therefore it could not have existed. Mackall succeeded not only in seeing the manuscript, which is ms Latin 18212 in the Bibliothèque Nationale, but in obtaining a photograph of it, which he showed at the meeting where he read the present communication. He describes the appearance of this wonderful document and also the famous printed copy of Servetus' book in the Bibliothèque Nationale which he was permitted to compare with the manuscript. The same library also has a copy of the suppressed 1723 imprint of the "Christianismi Restitutio" from the library of Richard Mead. Mackall adduces evidence to prove that Mead had nothing to do with the project to make this edition of Servetus' work. It was probably the idea of Guysbert Dummer, a Hollander.

The January, 1910, issue of the *Johns Hopkins Hospital Bulletin* contained Osler's most delightful article on Servetus. Osler mentions the copy of the original edition of the Christianismi Restitutio which is in the Bibliothèque Nationale. It belonged to Dr. Richard Mead, who exchanged it with M. de Boze for a series of medals. On the title-page is the signature of Germain Colladon, the Geneva lawyer who conducted the prosecution of Servetus. There is also a complete Christianismi Restitutio in the Imperial Library at Vienna. Osler states that in addition to the copy of the Mead imprint contained in the Bibliothèque Nationale there are two copies in the British Museum. He reproduces in facsimile the title-page and the pages containing the account of the pulmonary circulation from the original edition in the Bibliothèque Nationale. Osler's account of the great martyr is in his happiest vein and supplies in a resumé practically all the essential facts pertaining to his life and writings. Sir John Foster, in his "Lectures on the History of Physiology," gives an authoritative summary of all the various phases of the discussion concerning the discovery of the pulmonary circulation. He is inclined to the belief that Columbo had seen a manuscript copy of the book of Servetus.

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[1] *Proc. Roy. Soc. Med.*, Sect. Hist. Med., March, 1924.

BOOK REVIEWS

Zürcher Medizingeschichtliche Abhandlungen, herausgegeben von G. A. Wehrli and H. G. Sigerist, Privat Dozenten in Zürich.
Vol. i. Theodor Billroth in Zürich. 1860–1867. By Dr. Med. & Dent. Arnold Huber. 192 pp. and 5 illustrations, Zürich, Verlag Seldwyla, 1924.

This is the first of a new series of publications on the history of medicine that is being put out from the University of Zürich by Drs. Wehrli and Sigerist. Urged thereto by the need for an outlet for the work of their scholars and by the increasing interest in the subject throughout Switzerland, they expect to publish occasionally volumes that vary from a few pages in size to monographic corpulence. Contributions from other countries are welcomed and all fields of medical history will be cultivated. Subjects may be biographical, source studies, text publications or bibliographical. The volumes are neatly presented in heavy paper bindings, with paper and type of good quality. There is no mention of their price.

The first volume concerns itself with a detailed account of Billroth's stay in Zürich from 1860 to 1867 and what he accomplished there as surgeon and as teacher. Born in Bergen in 1829, Billroth attended the gymnasium and university at Greifswald, and then the universities of Göttingen and Berlin, where he graduated in 1852. Appointed *privat dozent* for surgery and pathological anatomy in 1856, he taught these subjects in Berlin until called to Zürich as professor of the surgical clinic in 1859. Called to Vienna in 1867, he remained there until his death from chronic myocarditis in 1894.

For the details of what Billroth accomplished at Zürich, the reader must consult the text, which with Teutonic thoroughness gives *inter alia* complete detailed inventories of the instruments of the hospital, his thirty-eight publications and the 144 medical courses given during this period. His influence in improving the *Kantonsspital* and the medical course at the university was undoubtedly great, and is sympathetically told by the admiring author.

Vol. ii. Der Zürcher Stadarzt, Dr. Christoph Clauser und Seine Stellung Zur Reformation der Heilkunde im xvi Jahrhundert, Nebst Faksimileausgabe Seiner Harnschrift (Sic) und Seiner Kalender. By Dr. G. A. Wehrli. 162 pp. (of which 43 are in facsimile) and 7 illustrations. Zurich, Verlag Seldwyla, 1924.

One of the first to decry the medieval overemphasis of uroscopy, this little-known physician was apparently an important element in the Swiss medical life of the first half of the sixteenth century. Paracelsus dedicated some of his works to him and he was a friend of Conrad Gesner and of the reformer, Zwingli. Nevertheless, until the appearance of this book, he seems to have escaped recognition. The investigation into his family and personal history, his medical views and writings and the survey of the Swiss medicine of that time is a good example of the painstaking but philosophic character of the work of Sigerist and his associates.

Vol. iii. Pfanzenbilder Auf Griechischen und Römischen Munzen. Eine Naturwissenschaftlich—Numismatische Studie. By Dr. Med. O. Bernhard in St. Moritz. 47 pp., with 131 copies of coins. Zurich, Verlag Seldwyla, 1924.

This little work is offered as a bridge between numismatics and natural history. Based on the Imhoof-Blumer collection of antique coins and casts in Berlin, the author presents fine reproductions of 131 coins showing roses, wheat, palms and other plants, and also detailed descriptions of each coin.

E. B. Krumbhaar, M.D.

A Bibliography of Sir Thomas Browne, Kt, M.D. By Geoffrey Keynes, M.A., M.D., F.R.C.S. Cambridge, at the University Press, 1924.

In the first David Lloyd Roberts lecture delivered at the Royal College of Physicians, Mr. Edmund Gosse, in speaking of the Roberts collection, said:

> He left his great library to be divided between the John Rylands in Manchester and this College, his secular books to the one and his medical books to the other. You had a battle royal with Dr. Guppy over

the body of Sir Thomas Browne, of whose editions Dr. Lloyd Roberts possessed an unequaled collection. I am sorry to say that Manchester won, and that the law courts, in their narrow pedantry, decided that the Religio Medici and Urn Burial are not "medical books." Alas! another proof that "the law is an ass."

Mr. Gosse is undoubtedly right, as the works of Sir Thomas Browne, particularly "Religio Medici," make as great an appeal to the medical collector as does any rare book dealing strictly with medicine, and the publication of this bibliography by Mr. Keynes serves to stimulate the collector's interest in the various editions of Browne. Mr. Keynes' previous bibliographies of Donne and Blake thoroughly established his reputation in this field. He says in his preface that his first interest in Sir Thomas Browne was aroused by Sir William Osler, and this book is the result of sixteen years of collecting and study of Sir Thomas Browne's works. It is replete in bibliographical knowledge and is authoritative to the last degree. To the ardent collector of Browne, the exclusion of certain mythical editions is of particular interest. The vain search for the "Religio Medici" of 1648 and the French translation of 1732, quoted by Williams, Greenhill, Wilkin and Dr. Watt, may now be dropped, as Keynes shows definitely there were no such editions. The data are extremely accurate since Keynes had the opportunity of comparing the collections of Sir William Osler, the British Museum and the Bodleian with his own very complete set.

The collector can complain a little perhaps over the omission of a few of his favorite "points," such as the page of advertisement in the 1736 Curll edition, which was such a part of the Pope-Curll controversy, or the misprinted date "2642" in Digby's "Observations" which is one of the distinguishing marks between the two editions of 1645. For the first time, careful study has been made of the changes in the celebrated Marshall frontispiece which is important to those who are interested in coppers, and upon the basis of this study, he reverses the previous opinion of the order of the appearance of the two surreptitious editions, and places the edition with twenty-six lines and 159 pages as the first edition.

There are listed in this bibliography, seventy-two editions of "Religio Medici," twenty of "Vulgar Errors," and it is equally complete in all of Browne's works. Mr. Keynes, has, however, gone far beyond the works of Browne himself, and in an appendix describes eighty-six books written in imitation of "Religio Medici," beginning with "De Religio Laici, 1645," and gives 37 books written in imitation of "Vulgar Errors." He has, also, with the devotion of a Shakespeare scholar described 177 source books.

Dr. Edward Brown is not neglected, and his travel books, sixteen in number, are described. This section is headed "Dr. Edward Browne" although the title pages of Edward Brown's works have the name spelled without the final "e."

There is also an appendix devoted to Wilkin's efforts in producing the famous edition of 1835, which is so interesting that it forces one to reread Wilkin's own prefaces. Another attractive feature is the citation of the libraries where rare copies may be found and a list of printers who have issued the various editions. The frontispiece is a beautiful reproduction of a recently discovered portrait of Sir Thomas Browne and his wife Dorothy, whose features have been hitherto unknown. The illustrations include a facsimile in color of a page of a manuscript copy of the "Religio Medici," and the title page of the first surreptitious edition. There are in all forty full-page reproductions of the title pages of the various rare editions of Browne's works.

The typography and bookmaking of this work are a credit to the Cambridge Press.

LEROY CRUMMER, M.D.

LES ROIS THAUMATURGES. ÉTUDE SUR LE CARACTÈRE SURNATUREL ATTRIBUÉ A LA PUISSANCE ROYALE PARTICULIÈREMENT EN FRANCE ET EN ANGLETERRE. By Marc Bloch, Professeur a l'Université de Strasbourg. En Dépôt: Librairie Istra, Maison d'Édition, Strasbourg, 15, rue des Juifs, Paris, 57, rue de Richelieu. Humphrey Milford: Oxford University Press, 1924.

Professor Bloch has written a most exhaustive and erudite study of the "divinity that doth hedge a king." As he states, the origins of the conception of mystic powers possessed by royal persons are lost in the obscurity attendant upon the beginnings of most human institutions. Certain it is that from the earliest periods down to a comparatively few centuries ago certain superhuman attributes were ascribed to those hereditary rulers who reigned by divine right. Because the supposed power of healing by the royal touch or other means figured among these, we must by no means allow ourselves to think that the European or English kings whose thaumaturgic properties are the special object of study by Professor Bloch were considered either by themselves or their subjects in the light of mere sorcerers. Their mystical functions were merely an appanage of their office, the essential duties of which were to rule their people, administer justice and conduct their affairs in war and peace.

The most generally recognized mystic power of the kings of France and England was that of curing scrofulous ulcers by their touch. These ulcers were most often what we would now term broken-down tuberculous glands. Their usual location was in the neck and in former times when there was no rational treatment for them, the destruction of tissue seems frequently to have extended to the face. Such strumous conditions, owing to bad hygienic conditions, were formerly much more common than they are at the present day, and owing to the prevalence of the idea of their cure by the royal touch, received the name in France of the *mal le roi*, and in England of the king's evil. The earliest written reference to a French king's possession of this power Bloch cites from a manuscript of one Guibert, an ecclesiastic, who writing early in the twelfth century stated that he had seen cures of scrofulous ulcers wrought by the touch of Philippe I and his son Louis VI. Bloch quotes a statement from a contemporary manuscript that Robert II, the grandfather of Philippe I, was so saintly a man that his touch possessed healing properties, but the faculty is attributed more to Robert's saintliness than to his royalty. The first English king to whose mystical medical powers there is contemporary written testimony was Henry II, of whom Pierre de Blois, a French monk at his court, wrote that he had seen him touch and cure strumous ulcers; but the popular tradition credits Edward the Confessor as the first English sovereign to exercise his therapeutic powers in this manner, and there are many statements made by early English chroniclers to the effect that Henry I and other English sovereigns were wont to cure by their royal touch. Bloch quotes the well-known story that Edward the Confessor touched the sick when a youth at the court of the Duke of Normandy. Bloch presents a very ingenious theory as to the origin of the tradition. He states that Henry I was most anxious to conciliate his English subjects. He married an English wife and was anxious to attach his dynasty in every possible way to that of the English kings before the Conquest. The most ancient narratives that tell of the miraculous cures wrought by Edward the Confessor were written during the reign of Henry I, and the official interpretation of the cures brought about by the royal touch of Henry I, as given by William of Malmesbury and other writers, was that the gift was a direct inheritance of Henry's from Edward. Bloch concludes that the royal rite of touching was never claimed or exercised by the Anglo-Saxon kings of England, that Henry I, seizing on a vague statement that Edward the Confessor had laid hands on the sick with healing power, transferred the virtue appertaining to a saint into a royal appurtenance and thus originated the theory of the divine right inherent in English kingship.

Bloch points out that the idea that kings or chiefs possessed supernatural healing powers is found amongst most primitive peoples, but the problem presents itself as to why after a long period of abeyance the medieval royalties of France and England should have decided to reassume the prerogative. It should be remembered that both the French and English kings of all the earlier dynasties claimed to trace the origin of their respective houses back to the dark periods of the history of the various Germanic tribes from which they all first originated. All these primitive Germanic kings or chiefs in turn claimed supernatural descent, tracing their genealogy back in most instances to Wotan. Hence the theory of the divine right of kings and their supernatural powers goes back into the darkness of oblivion.

The miraculous powers of the primitive chieftains and kings was, however, generally used in a collective direction, towards procuring the welfare of groups of people, not of individuals. Thus by their intervention rain was caused when necessary and good harvests procured, pests were averted and success in war assured. The power of healing individual ills was brought forward when religion forbade attempts to interfere with the grand phenomena of nature. With the advent of Christianity kings ceased to be demigods although the old conception of certain divine attributes was very slow in dying out.

It was not until the eighth century that the ceremony of anointing the king, consecrating him with holy oil, came into vogue, in imitation of the ancient Hebrew custom. Pepin, the son of Charles Martel, had himself thus consecrated, and the custom was quickly adopted by the kings of England. The object of such consecration was undoubtedly to impart a more or less sacred character to the recipient, rendering those who rebelled or attacked a king guilty of sacrilege.

As years passed certain ceremonial usages developed about the ceremony of touching. The practice became strictly confined to those who suffered from ulcerated cervical glands. Accordingly applicants for relief were obliged to subject themselves to examination by one of the physicians or surgeons attached to the court. In France there was used a formula: "Le roi te touche, Dieu te guerit." In England a special service was instituted. It was customary for the king to give his patient a gift of a small sum of money and in time special pieces of silver were carried for this purpose, "touch-pieces," many of which are still in existence.

The first reference to the royal touch in medical literature which Bloch has found was written by Gilbert Anglicus in the first half of the thirteenth century. It is mentioned in the "Treatise of the Four Masters," by Bernard of Gordon, and by Henri de Mondeville. The surgeon John of Ypres mentions the practice but seems to doubt its efficacy, while writers of a somewhat later date, Gui de Chauliac, John of Gaddesden, and Richard Mirsfield all refer to the royal touch as a recognized therapeutic procedure in the treatment of strumous ulcers. With the exception of the Fleming, John of Ypres, who hated the French and therefore decried the supernatural power attributed to their kings, there is no mention made by any medical writer, except the French and English authors, of the royal touch. Even Arnauld of Villanova who had lived in France makes no reference to it in his chapter on "Scrofula."

Bloch gives a detailed account of the attitude of the papacy towards the claims of the kings of France and England to this miraculous power. It would seem that the ecclesiastical authorities at first ignored them but later allowed the practice in furtherance of political ends. He also discusses at length the attitude of other nations towards the French and English claims, giving some curious assumptions put forth on behalf of other dynasties. Thus it was claimed that the king of Denmark cured leprosy. This power was, however, not to be regarded as supernatural, because it was asserted the Danish sovereigns possessed a secret remedy. The kings of Castile were said to be able to exorcise in cases of demoniac possession. It was claimed in the seventeenth century that the kings of Spain had inherited this power from their Castilian ancestors, and in addition the power of healing strumous ulcers by touch from the princes of Aragon, from whom they were also descended.

One of the most interesting chapters in the book is that on the "cramprings." From the reign of Edward II to that of Mary Tudor it was customary for the sovereigns of England to make an offering of gold and silver at the service of the mass of Good Friday. This gold and silver was then made into rings which were supposed to possess curative power against muscular pains, rheumatism and epilepsy. Bloch offers the very plausible suggestion that Edward II originated this custom, or rather formulated its observance in a vain effort to bolster up his tottering claim to rule.

Although the association of the royal office with a sacredotal character dates back according to the modern view to the primitive times when the king or chief of a tribe was also its high priest, such ethnological conceptions were far beyond the grasp of the medieval mind. In the eyes of their subjects the kings of France and England were invested with sacredotal powers simply because at their coronation they had also been consecrated, anointed with the holy oil. From this standpoint in those credulous ages it was very easy to invest the office with certain gifts or attributes which belonged to saints or ecclesiastics. Hence the facility with which such phenomena as the royal touch and the cramprings established themselves. Bloch goes into a most erudite study of some of the other current beliefs in occult therapeutic powers comparing their origin and exercise with those attributed to royalty.

With the great struggle between Catholicism and Protestantism in the sixteenth century the belief in the divine powers of kings sustained a great shock, yet it survived even if not quite as universally believed. André du Laurens, physician to Henri IV of France, published in 1609 a book on the royal power to cure strumous ulcers. It was dedicated to his royal master and, of course, was written to prove that he possessed the power. Bloch infers from the famous allusions in Macbeth that James I undoubtedly essayed to cure by his royal touch. Louis XIII and Louis XIV in France, and Charles I in England touched their subjects right royally. After the Restoration Charles II continued the practice which had, of course, not been attempted by Cromwell. Queen Anne was the last English sovereign to exercise the royal prerogative and we have the account of her having done so to the illustrious Samuel Johnson in the lexicographer's own words.

In France Louis XV and Louis XVI both touched for the king's evil. Louis XVIII was wise enough not to attempt it, but his successor, Charles X, in 1825 revived the ceremony but did not continue it owing to the ridicule and opposition he aroused. He was the last claimant to the privilege.

It is a pleasure to commend this most profound study of an interesting historical phenomenon to our readers.

FRANCIS R. PACKARD.

A MEMOIR OF WILLIAM AND JOHN HUNTER: By George C. Peachey, William Brendon and Son, Plymouth, G. B., 1924.

The first chapter of this book is devoted to a sketch of the history of the early teaching of anatomy in England, down to the year 1746, including a resume of the various acts of parliament or royal grants whereby attempts were made to provide bodies for dissection, with an account of courses of lectures on the subject from 1740 to 1746. In view of the present-day agitation in regard to punishment for murder the following facts are of interest. From the reign of Henry VIII on, various sovereigns of England had made grants whereby incorporated societies such as the Barbers and Surgeons, the College of Physicians of London and the Universities of Oxford and Cambridge were given a certain number of bodies of executed felons, generally from two to four a year, for purposes of dissection. As long as there were no methods known by which to preserve bodies it was necessary to make the best possible use of this scanty material in the quickest possible time and the bodies were dissected, or "an anatomy was held" in a hall crowded with eager witnesses, by a demonstrator, the students having no chance to do any practical dissection with their own hands. In 1752 an act was passed providing for the dissection of the bodies of all persons executed for murder in Great Britain.

> The ostensible purpose of the Act was to make the penalty of homicide more infamous and similarly, in order to diminish the increasing prevalence of burglary and highway robbery, then still punishable with death, a Bill was introduced into the House of Commons in 1796, providing that the bodies of persons executed for those crimes should also be handed over for dissection. But, on the ground that it annihilated the difference between murder and the lesser forms of crime (though the older grants had failed to recognize any such difference) the Bill failed to secure acceptance.

It was not until 1832 that the so-called Warburton Anatomy Act was passed providing a legal way in which an ample supply of anatomical material could be secured by all reputable schools and teachers.

Peachey gives a list of the private teachers of anatomy in England between 1700 and 1746 with some account of their activities. It is interesting to Americans to find Dr. Abraham Chovet among those mentioned, because he came to this country and attained a distinguished place in the profession in Philadelphia. He was on the staff of the Pennsylvania Hospital and that institution possesses a wax medalion portrait of him made by one Eckhout, who probably had assisted him in the construction of the wax models which he used in his teaching. All these private teachers had to depend on models or drawings for demonstration purposes to supplement the meager supply of bodies which were practically unprocurable for their dissecting rooms except when got by body snatching. Peachey quotes a warning William Hunter gave to his students as late as 1783:

> In a country where liberty disposes the people to licentiousness and outrage, and where (*private*) anatomists are not legally supplied with dead bodies, particular care should be taken to avoid giving offense to the populace or to the prejudices of our neighbours. Therefore it is to be hoped that you will be on your guard, and out of doors, speak with caution of what may be passing here, especially with respect to dead bodies.

Peachey gives William Hunter the credit of having been the first to introduce what was then known as the "Paris Method," of providing a subject for dissection to each student, with personal demonstration by the teacher of the process to be followed, which was a great step forward in the progress of the study of anatomy in England. The chief outlines of William Hunter's life are fairly familiar to most readers but Peachey presents several new points of interest and corrects some errors regarding it. He gives two hitherto unprinted letters, one from William to his brother James Hunter, and the other from James to William, bearing on William's first arrival in London, and proves that he left Edinburgh towards the end of 1743, instead of in 1740 as generally stated and also that he lived with Smellie throughout the winter of 1740–1741 instead of only staying at his house for a few weeks. Peachey goes very thoroughly into Hunter's early years in London, relating how he severed the arrangement he had entered into with Cullen and Smellie and went to live and work with James Douglas, another Scotchman who had a large practice and was a successful teacher of anatomy in London. The author has discovered a great deal of valuable new information about the Society of Navy Surgeons before whom Samuel Sharp gave courses of lectures, which William Hunter gave after Sharp's retirement, and proves that contrary to the usual belief, Hunter had given private courses in anatomy and surgery prior to this time. He took over Sharp's course in 1749, whereas Peachey prints an advertisement of a course to be given by him in 1746, therefore he had been lecturing at least three years before he undertook Sharp's course.

In 1748 John Hunter joined his brother William in London. Jesse Foot's fable of his having been a wheelwright or carpenter before entering on the study of anatomy has long been discarded. Another of Foot's statements which has been proved untrue was that though John Hunter served a long apprenticeship in anatomy he had only devoted five months to surgery before commencing its practice. Peachey shows that John Hunter passed two years working with Cheselden at Chelsea, had attended Pott's service at St. Bartholomew's, and had had two courses as a pupil and five months as a house-surgeon at St. George's. He quotes Hunter's famous remark: "Jesse Foot accuses me of not understanding the dead languages; but I could teach him that on the dead body which he never knew in any language, dead or living."

Peachey gives rather briefly an account of the controversies between William Hunter and the Monroes and tells of his offer of £7,000 to the government, if the latter would donate the land for the foundation of an anatomical school in London. His offer was not accepted and shortly afterwards he established the famous school in Windmill Street where with Hewson and John Hunter he continued his private courses. After Hewson and he had a disagreement and parted, Cruikshank became his partner in the enterprise, and later Hunter's nephew, Matthew Baillie, became associated with the school which he and Cruikshank continued after William Hunter's death. Hunter in 1762 had delivered the Queen of the baby who subsequently became George IV and had been appointed physician extraordinary to the Queen. His practice in midwifery had grown to such an extent that it must have seriously interfered with his personal application to anatomy. In 1774 he published his magnificent volume on "The Anatomy of the Human Gravid Uterus." In this work he described certain structures and relations which completely reversed views hitherto held on that organ. This led to the famous quarrel with his brother John who claimed that he had first brought them to his brother's notice and was therefore entitled to recognition as the original discoverer. Peachey places the final break between the brothers in 1777, and points out that it could not have occurred sooner because John lectured in the Great Windmill Street anatomical theater in October, 1777. John did not call public attention to the omission from the Atlas of the credit due him for the discoveries described in it until 1780. Peachey thinks there must have been some other cause of disagreement between them and is inclined to accept Jesse Foot's statement:

> It arose from John having invited William to the sight of a diseased part of a soldier, who had died in consequence of it; and William having found that this diseased anatomical property would prove a valuable preparation for his museum caused it to be taken to his house, and refused to give it up to the claim made by John.

Although the statement has been made that the brothers were reconciled just before William's death, Peachey considers that this was not so. Nevertheless John attended his brother professionally after he was stricken with his fatal apoplexy. John however was not mentioned in William's will nor did he attend his brother's funeral.

> As between the brothers it is in John's favor that William never denied the truth of John's detailed description of the affair; and in William's favor is the fact that on the appearance of the Atlas, John had made no remonstrance against the omission of his name in this specific reference.

William Hunter, dying in 1783, uttered his famous apothegm: "If I had strength enough to hold a pen I would write how easy and pleasant a thing it is to die."

In 1761 John Hunter's health had been so impaired by hard labor in the dissecting room that he procured a commission as surgeon in the army service on the expedition to Belle Isle, and later in Portugal. On his return in 1763 he worked for a while with Spence, the fashionable dentist of the day, but his other activities are somewhat obscure though it is probable he recommenced teaching anatomy. In 1765 he purchased Earl's Court and within a year later the house in Golden Square.

In 1767 he was elected a Fellow of the Royal Society, three months in advance of the election of his brother William, and sustained the famous rupture of his tendo Achillis while dancing. In the same year he also accidentally inoculated himself with syphilis. In 1768 he was elected surgeon to St. George's Hospital in which he was to work literally until the day of his death. Among his house pupils in that period were Abernethy, Cline, Astley Cooper and Jenner.

John Hunter was married to Anne Home, July 22, 1773, and Peachey thinks that he had probably been engaged to her for some years before, the marriage being postponed until he was cured of his venereal disease, which Hunter states required three years.

Peachey gives very complete details of the scientific work accomplished by Hunter during the remaining years of his life. From six in the morning until nine he dissected, then breakfasted, saw patients at his house and made his round of visits. He had his dinner at four and then slept for an hour, after which he lectured or else dictated to a secretary until one or two o'clock in the morning. Everyone is familiar with the menagerie and museum which he formed at Earl's Court. Although he lectured to private pupils at least as early as 1770 the first public advertisement of his lectures that Peachey has found is dated October, 1775. In 1787 he associated his brother-in-law Everard Home in the course with him. Home was much younger than Mrs. Hunter. John Hunter had become interested in him when he was a schoolboy and had offered to take him as a student. The offer was accepted and Home studied with Hunter and subsequently became his assistant in his practice and teaching, and in his museum. Hunter also had him appointed assistant surgeon at St. George's Hospital and at Hunter's death he succeeded to his position as surgeon to the Hospital. Hunter had other assistants among whom were William Lynn, William Bell, John Andree, and last but by no means least, William Clift. In 1789 Hunter had an attack of amnesia followed a fortnight later by giddiness, disturbance of vision and insomnia. His health failed progressively during the few years of life that were left to him. Notwithstanding the agony of mind and body which he must have suffered from repeated attacks of angina pectoris Hunter continued to work himself to the limit. Then arose his famous controversy with his colleagues on the staff of St. George's Hospital. Peachey gives the fullest details of their unfortunate disagreements. Throughout Hunter's whole connection with the hospital there seems to have been friction between him and the other members of the staff. The climax was reached in 1793 when the majority of the staff made proposals for certain regulations in regard to the personal attendance of the staff on their hospital duties which they hoped it would be impossible for John Hunter to fulfill owing to the precarious state of his health and the immense amount of his other work. In making these proposals they did not consult Hunter at which he was justly bitterly offended. The governors of the hospital had recently revived a rule that no pupils should be entered at the hospital unless they could present certificates of proper preliminary training. Two young men had applied to Hunter to be admitted as his house pupils unfurnished with the necessary credentials. Hunter told them he would nevertheless ask the board to let them enter. On October 16, 1793 Hunter attended the board meeting for this purpose:

> In the course of his remarks he made some observation which one of his colleagues thought it necessary instantly and flatly to contradict. Hunter immediately ceased speaking, retired from the table and struggling to suppress the tumult of his passion hurried into the adjoining room, which he had scarcely reached when with a deep groan, he fell lifeless into the arms of Dr. Robertson, one of the physicians of the hospital.

Peachey analyzes the various accounts of the occasion. He points out the curious fact that though the Minutes record the meeting they make absolutely no mention of John Hunter's seizure and death, nor is there any record of any vote of condolence on his loss. He contends that the fatal contradiction must have been made by either William Henry Mathew or William Walker. Hunter was buried in the vaults of St. Martin-in-the-Fields. In 1859 when Frank Buckland's father was dean of Westminster, the distinguished naturalist searched for the coffin in the vaults where it had been placed:

> After eight days work he was ill for a fortnight, in consequence of the stench arising from the older coffins, dating back to the days when a leaden shell was not compulsory: but returning to his gruesome task, the time came when 3260 coffins had been removed and only five remained, two lying side by side upon the floor and three one over the other, in a corner of the vault.

One of those proved to be the object of his search. The coffin was reinterred in Westminster Abbey between the graves of Wilkie and Ben Johnson. A suitable tablet with an inscription composed by John Flint South, by whose efforts the reinterment was arranged, was placed above the grave.

The author does not go quite as fully as might have been expected into the wretched story of the base ingratitude of Everard Home, the man whom Hunter had educated in the profession, associated with him in his lifework and left his executor. These kindnesses Home repaid by publishing as his own work manuscripts which Hunter had left of his researches and then when the matter was being inquired into and he feared detection burning quantities of Hunter's invaluable writings and notes. Nor though he describes it does he give as fully as might be wished the details of the noble devotion of William Clift to his late master's memory, which led him to copy thousands of pages of Hunter's manuscripts when he realized what was the character of Home's proceedings.

We have given a somewhat lengthy notice of this most interesting and excellent book because it is by all odds the best account of both the Hunters which has yet appeared. There is an excellent account of William Hunter by Professor Teacher in the catalogue of the Hunterian Museum in Glasgow. The earlier lives of John Hunter by Foot, Home and Ottley are full of errors, the more recent life by Sir James Paget, though most entertaining, presents but little that is not drawn from its predecessors. In the present book the author had evidently made an exhaustive search of original sources and has achieved a result which is in every way admirable.

FRANCIS R. PACKARD, M.D.

ALBRECHT VON HALLERS BRIEFE AN JOHANNES GESNER (1728–1777). Herausgegeben, eingeleitet und mit Anmerkungen versehen von Henry E. Sigerist, Privatdozent für Geschichte der Medizin an der Universität Zürich. Abhandlungen der Königlichen Gesellschaft der Wissenschaften zu Göttingen, Mathematische-Physikalische Klasse, Neue Folge Bd. XI, 2. Berlin, Weidmannsche Buchandlung, 1923.

Albrecht von Haller was born in Berne in 1708 and died in his native city in 1777. Though much of his life was spent elsewhere, he never lost the passionate love for his homeland which is an immemorial attribute of the Swiss.

In early life he was greatly handicapped by a feeble constitution and was unable to share in the boyish pursuits and sports of school life. This, together with a natural zeal for learning, made him conspicuously studious and serious minded. At the age of eighteen he entered the University of Tübingen for the purpose of studying medicine, but he was very unhappy in the Suabian town. The gross conviviality of the students and the easy virtue of the women disgusted him to such a degree that at the end of his first year he migrated to Leyden, attracted not only by the more sober life of the Dutch but also by the great fame of Boerhaave, then the master medical mind of the world.

From Haller's letters and from other sources we now know that Boerhaave was not an original thinker and that his contributions to medicine were few. But as a sane bedside teacher he was unsurpassed in his day. Probably no one before or since has made use of twelve beds, which were his teaching arena, with the same pedagogic success.

In Leyden Haller spent his happiest years, to the memory of which he often recurs in his correspondence.

It was the custom of the time, there being no scientific journals for the dissemination of opinions and the ready publication of discoveries and observations, for learned men to correspond with one another, making letters their medium of exchange for scientific thought. A large number of Haller's own letters and those he received have been preserved. Written apparently without thought of preservation, they give us an *intime* view of personalities which is of great value as historical material.

The present volume is a collection of Haller's letters, numbering 549, to his lifelong friend and fellow student, Johannes Gesner, also a Swiss, who accompanied Haller to Tübingen and afterwards to Leyden. They are written in Latin in a free and easy, almost colloquial, style.

It is interesting to see how examinations were conducted in Haller's time in Leyden. The candidate was examined three times: the first time secretly and at night, so that if he failed his honor would not suffer; the second time during the day for one hour, during which time he had to explain a specified disease and to indicate the treatment. During this discussion he had to answer all manner of objections made by the professors. In the third test he had to explain one of the aphorisms of Hippocrates. Passing these successfully gave him the right to dispute in public, and if he acquitted himself creditably in the dispute, he received the title of doctor and the right to practice medicine.

After his graduation Haller visited England, the country of Harvey, Sydenham and Newton having always appeared to him as the chosen land of science. Speaking of the English people he says: "Whatever they turn to, they carry to success whether it be good or bad."

During his subsequent residence in Basel, where he studied mathematics, botany and physiology, Haller came into contact with Benedict Stähelin, a man well versed in medicine, anatomy and botany, and at the same time a devoted student of English poetry. Through him Haller became acquainted with the great poets of England, an acquaintance that roused in him the ambition to prove that the German language was also capable of producing an equally high type of poesy. It is probably needless to say that Haller, despite a considerable poetic talent, failed to prove his point.

In his letters he refers very frequently to English scientists with whom he was on friendly terms, and with whom he maintained an active correspondence. Thus he writes to Gesner that Dr. Pringle had promised to send him a complete set of Harvey's works.

In another letter, dated 1769, he refers to the fact that "Pringle and Franklin are going to France": in all probability this refers to our own Benjamin Franklin. In a letter of 1772 he speaks of having received the "Materia Medica" of William Cullen whom "the Scots almost adore." Many other interesting references occur, such as one to Joseph Priestley's discovery of air or oxygen, to John Evelyn's "Sylva or a Discourse of Forest Trees," which was sent to him by one of the Hunters, and so forth.

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The last letter to Gesner is dated Berne, December 3, 1777. Nine days later Haller died. His library and all his manuscripts were acquired by Emperor Joseph II.

It is to be regretted that the erudite editor has not translated the letters, as there are few physicians, and the reviewer is not one of them, who remember their Latin well enough to read the book with pleasure or satisfaction.

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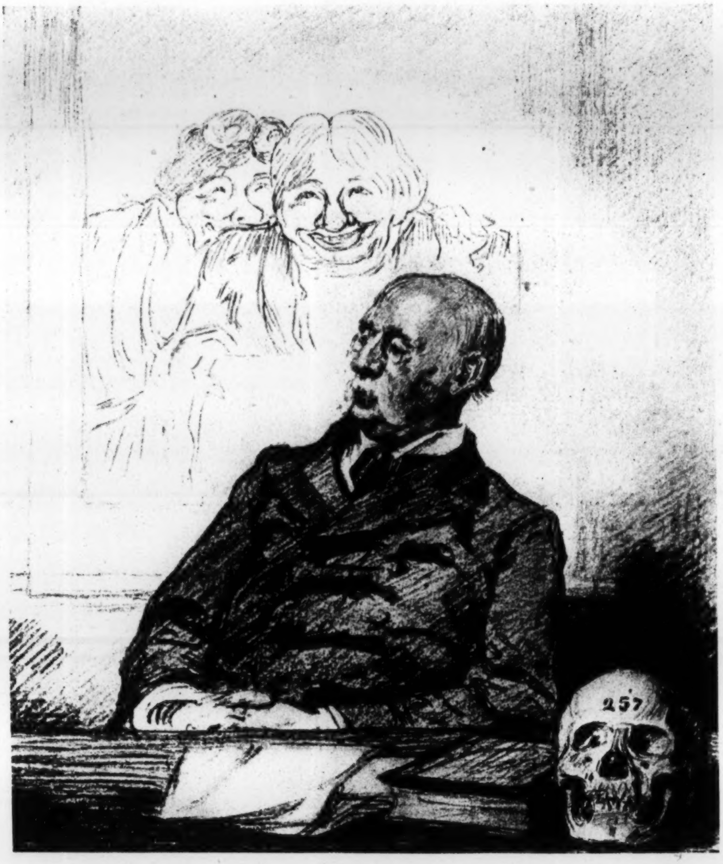

ROBERT FLETCHER
(DRAWN FROM LIFE BY P. RENOUARD)

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